令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	国語表現IA	1	620100	前学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	黒田　譜美	白山麓C 101.201		水曜　15:00-16:00

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	書く	「書く」活動の準備として、表記、係り受け、接続表現など言葉に関する基本的な知識を習得する。話し言葉と書き言葉、和語・漢語・外来語などニュアンスの違いを意識して、相手や場面によって適切に使いこなせるようにする。また、事実と意見を分けたり、説明の順序を工夫したりする練習を積み、小論文・レポートの執筆へとつなげる。さらに、励ましの言葉や受け入れる言葉など人間関係を構築していく言葉の力や、「聴く」という行為の働きを理解し、日常の言語活動に役立てる姿勢を身につける。
2	話す	
3	聴く	
4	読む	
5	伝え合う	

授業の概要および学習上の助言

■授業概要

国語表現は、実社会で必要な国語の知識や技能を身につけることを目標とした科目である。
国語表現IAでは、教科書『国語表現』（大修館書店）の下記内容に取り組む。

言葉と出会う
伝える、伝え合う
小論文・レポート入門

■学習上の助言

・課題は必ず提出すること。
・毎時の小テストは地道に取り組むこと。
・辞書は必ず用意すること。また、辞書を常に引くように心がけ、知らない言葉を確認し、着実に身につけること。
・さまざまなジャンルの本を読むよう心がけること。

【教科書および参考書・リザーブドブック】

教科書：『国語表現』大修館書店 ISBN：978-4-469-62396-3、『国語の常識 plus』明治書院 ISBN：978-4-469-625-23405-7
参考書：
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

日本語検定4級（中学校卒業）程度の国語能力を身につけている。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e, f	常用漢字の読み書きの習得に積極的に努める。
②	e, f	仮名遣いや送り仮名など表記の決まりを意識し、正しく書くことができる。
③	e, f	接続表現の種類と働きを理解し、適切に使うことができる。
④	e, f	「聴く」という行為の働きを理解し、日常の言語活動に役立てることができる。
⑤	e, f	5W1Hを明確にし、事実と意見を区別して書くことができる。
⑥	e, f	小論文の基本的な書き方を理解し、意見を筋道立てて書くことができる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	60	20	20	0	0	0	100
総合力指標	知識を取り込む力	0	30	0	0	0	0	0	30
	思考・推論・創造する力	0	10	10	10	0	0	0	30
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	10	10	10	0	0	0	30
	学習に取組む姿勢・意欲	0	10	0	0	0	0	0	10

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	小テストは9回実施し、計60点とする。 漢字 8回：30点 表記、文法のまとめ 1回：30点
	②	レ	
	③	レ	
	④		
	⑤		
	⑥		
レポート	①	レ	小論文：10点
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥	レ	
成果発表 （口頭・実技）	①		
	②		
	③		
	④		
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	レ	自己紹介文：10点 絵や写真を見て書く：10点 マイニュース記事：10点
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥	レ	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
常用漢字の読み書きの習得に積極的に努めることができる。 仮名遣いや送り仮名の決まりなど表記の決まりを理解し、常に正しく書くことができる。 接続表現の種類と働きを理解し、常に適切に使うことができる。 聞くこと、話すこと、伝え合うことを見つめ直し、コミュニケーションについて新たな発見をすることができる。 5W1Hを明確にし、事実と意見を区別して書くことができる。 小論文の基本的な書き方を理解し、意見を筋道立てて書くことができる。	常用漢字の読み書きの習得に努めることができる。 仮名遣いや送り仮名の決まりなど表記の決まりを意識し、書くことができる。 接続表現の種類と働きを意識し、使うことができる。 聞くこと、話すこと、伝え合うことを見つめ直し、コミュニケーションの楽しさを感じることができる。 5W1Hを意識し、事実と意見を区別して書くことができる。 小論文の基本的な書き方を理解し、意見を書くことができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	■科目ガイダンス ・科目の目的、内容、評価方法について理解する。 自己紹介 ・構成ノートに下書きをしてから文章を書く。	科目ガイダンス 講義と質疑 プリント配布 グループワーク ポートフォリオ①	復習：配布プリントを再読し、学習教育目標や行動目標を確認する。	30
2 ／	言葉と表記 ・表記の決まりを意識し、正しく書く。 ・漢字や慣用表現を正しく使う。	漢字小テスト① 口頭実技① 講義と質疑 プリント配布	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
3 ／	整った文を書く ・係り受けについて理解する。 ・文末表現の統一について理解する。	漢字小テスト② 講義と質疑 プリント配布 小テスト①返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
4 ／	相手に応じた言葉遣い ・話し言葉と書き言葉の違いや、その使い分けについて理解する。 ・和語・漢語・外来語のニュアンスの違いと、その使い分けについて理解する。	漢字小テスト③ 講義と質疑 プリント配布 小テスト②返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
5 ／	わかりやすい文を書く ・長すぎる文を避け、わかりやすい文にする方法を理解する。 ・読点を適切に打ち、あいまいな文を避けることの大切さを理解する。	漢字小テスト④ 講義と質疑 プリント配布 小テスト③返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
6 ／	文のつなぎ方 ・接続表現の種類と働きを理解する。 ・文脈による文のつながりを理解する。	漢字小テスト⑤ 講義と質疑 プリント配布 小テスト④返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
7 ／	まとめとふりかえり	まとめの小テスト 講義と質疑 プリント配布 小テスト⑤返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
8 ／	言葉のストレッチ体操 ・要点を落とさないよう集中して聞く。 ・傾聴について理解する。	漢字小テスト⑥ グループワーク まとめの小テスト返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
9 ／	絵や写真を見て書く ・説明の順序を考える。 ・相手に伝えることを意識してわかりやすい文章を書く。	漢字小テスト⑦ 講義と質疑 プリント配布 小テスト⑥返却 ポートフォリオ②	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
10 ／	マイニュース記事を書こう① ・事実を客観的に伝えるために、5W1Hを意識して情報をメモする。 ・事実と意見を区別して書く。	漢字小テスト⑧ 講義と質疑 プリント配布 小テスト⑦返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	マイニュース記事を書こう② ・発表する。 ・相互評価する。	講義と質疑 プリント配布 小テスト⑧返却 ポートフォリオ③	予習：発表の準備を行う。 復習：教科書・ノートを見直す。	30
12 ／	小論文 ・小論文の基本的な書き方を理解する。	講義と質疑 プリント配布	予習：小論文について調べる。 復習：教科書・ノートを見直す。	30
13 ／	小論文 ・発想を広げるための方法を理解する。 ・構成メモを作る。	講義と質疑 プリント配布	予習：発想法について調べる。 復習：教科書・ノートを見直す。	30
14 ／	小論文 ・推敲の観点を理解する。	レポート（小論文）提出 講義と質疑 プリント配布	予習：構成メモを仕上げる。 復習：教科書・ノートを見直す。	30
15 ／	小論文 ・小論文を読む。 ・相互評価する。	講義と質疑 プリント配布 相互評価 ふりかえり	予習：小論文を仕上げる。 復習：相互評価を見直す。	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Expression IA	1	620200	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAYLOR, James	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Writing	Students will come prepared to speak and write in English. To progress in the class, students will complete and submit tasks on time. Peer review and feedback are important parts of the writing process, so students will use every opportunity to communicate with classmates and respect others' ideas and opinions. It is crucial to ask classmates or the teacher for help when necessary.
2	Paragraphs	
3	Genres	
4	Journal	
5	Peer review	

Course Description and Expectations for Students (10.5pt)

Students will consider the features and structures of different genres of paragraphs and will write their own paragraphs. Students will learn about and practice the writing process, including planning and peer review, to improve the drafts of their work. The work on paragraphs in this course will benefit students as they work on other courses. Through the writing process and targeted language activities, students will gain the skills to describe their ideas logically in written English. Short writing tasks will be completed weekly for homework to give students further opportunities to practice expressing themselves. Students will learn and practice the skills and language to achieve high scores on academic writing tasks.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in written English.
Desire to improve writing skills through responding appropriately to receiving feedback and constructive criticism.
Work ethic to revise, edit, and rewrite drafts of a paragraph.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, f	Students will be able to develop sentences and paragraphs in response to issues and themes raised in class.
②	e	Students will be able to draw on cultural knowledge and personal experience to express themselves.
③	d, f, g	Students will be able to use planning techniques and peer review to develop their and others' work.
④	e, f	Students will be able to achieve clarity of thought by identifying the features of various genres of writing.
⑤	f, g	Students will be able to use different writing techniques to express thoughts and opinions and to persuade others.
⑥	e, f, i	Students will be able to investigate and discuss authors' intentions and meanings in various examples.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	80	0	20	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	5	0	0	25
	Ability to think, reason and create	0	0	20	0	5	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	20	0	5	0	0	25
	Attitude and motivation for learning	0	0	20	0	5	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will write 6 different genres of paragraph, which will be graded according to the following criteria: Process, Task Achievement, Cohesion, Coherence. The total for each criterion is 10, making the total for each paragraph 40 points. Paragraphs will be submitted online. Feedback will be given online before the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will write a journal of at least 200 words on an assigned topic for homework after each of the first 14 lessons. The journals will be submitted online. Students will receive credit for journals of sufficient length submitted on time. Each journal is worth 10 points. Feedback will be given online before the following lesson.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students improve their writing drastically, go through the writing process, respond appropriately to feedback, and produce paragraphs of various genres that are logically structured, well argued, and supported by evidence from reliable sources. Students complete and submit all work on time.	Students improve their writing to some extent, go through the writing process, respond to some feedback, and produce paragraphs of various genres that are for the most part logically structured, well argued, and supported by evidence from reliable sources.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: students will read the syllabus. Elements of a paragraph: Students will consider the structure of a paragraph.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
2 /	Opinion Paragraph: Students will consider the features and structures of opinion paragraphs, then plan and write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
3 /	Cause & Effect Paragraph: Students will consider the features and structures of cause and effect paragraphs, then plan and write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
4 /	Process Paragraph: Students will consider the features and structures of process paragraphs, then plan and write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
5 /	Comparison Paragraph: Students will consider the features and structures of process paragraphs, then plan and write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
6 /	Problem-Solution Paragraph: Students will consider the features and structures of problem-solution paragraphs, then plan and write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
7 /	Persuasive Paragraph: Students will consider the features and structures of persuasive paragraphs, then write their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
8 /	Review: Students will review what has been covered so far in the course.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
9 /	Introductory Paragraph: Students will consider the features and structures of introductory paragraphs and thesis statements.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
10 /	Introductory Paragraph: Students will plan and write their own introductory paragraph.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Main Body Paragraphs: Students will consider the features and structures of effective main body paragraphs, then plan their own.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
12 /	Main Body Paragraphs: Students will write their own main body paragraphs.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
13 /	Main Body Paragraphs: Students will write their own main body paragraphs.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
14 /	Concluding Paragraph: Students will consider the features and structures of concluding paragraphs, then plan and write their own. Title: Students will consider the features of effective titles.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
15 /	Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work		

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	国語表現IB	1	620300	後学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	黒田　譜美	白山麓C 101.201		水曜　15:00-16:00

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	書く	人間関係を維持、構築する上で重要な挨拶、敬語についての知識を習得し、実生活でも実践する態度を養う。履歴書、自己推薦書、学修計画書など自分をアピールする書類の特徴を理解し、具体的で説得力のある文章を書けるようにする。社会生活で必要なコミュニケーション能力を高めるために、電子メールのマナーや電話応対、手紙の形式の基礎を学び、相手や目的に応じて、適切なメディアや形式を選び、使い分けられるようにする。さらに、新聞やインターネットの特徴や注意点を理解し、情報を吟味しながら活用する力を身につける。
2	話す	
3	聞く	
4	読む	
5	メディア	

授業の概要および学習上の助言

■授業概要

国語表現IBでは、教科書『国語表現』（大修館書店）の下記内容に取り組む。

小論文・レポート入門
自己PRと面接
メディアを駆使する
付録 敬語のまとめ

■学習上の助言

・課題は必ず提出すること。
・毎時の小テストは地道に取り組むこと。
・辞書は必ず用意すること。また、辞書を常に引くように心がけ、知らない言葉を確認し、着実に身につけること。
・さまざまなジャンルの本を読むよう心がけること。

【教科書および参考書・リザーブドブック】

教科書：『国語表現』大修館書店 ISBN：978-4-469-62396-3、『国語の常識 plus』明治書院 ISBN：978-4-469-625-23405-7

参考書：

ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

国語表現IAを履修し、日本語の読解力や文章表現力を身につけている。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e, f	常用漢字の読み書きの習得に積極的に努める。
②	e, f	人間関係を構築する上での敬語の重要性を理解し、場面や相手に応じて適切に敬語を使うことができる。
③	e, f	電子メール、手紙の基本作法を理解し、適切に使用できる。
④	e, f	具体的なエピソードを入れて、効果的な自己PRをすることができる。
⑤	e, f	ネットを用いたコミュニケーションの特徴と使用する上での留意点を理解することができる。
⑥	e, f	インターネットでの情報の検索の仕方と、その注意点について理解することができる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	40	30	30	0	0	0	100
総合力指標	知識を取り込む力	0	30	0	0	0	0	0	30
	思考・推論・創造する力	0	0	20	0	0	0	0	20
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	10	20	0	0	0	30
	学習に取組む姿勢・意欲	0	10	0	10	0	0	0	20

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	小テストは7回実施し、計40点とする。 敬語1回：10点 漢字6回：各5点
	②	レ	
	③		
	④		
	⑤		
	⑥		
レポート	①		レポートは2種類課し、下記配点とする。 ①面接準備シート：10点 ②レポート：20点
	②		
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
成果発表 （口頭・実技）	①		成果発表（口頭・実技）は3種類課し、各10点計30点とする。 ①挨拶 ②模擬面接 ③電子メール
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
目的や場に応じて常に適切な挨拶ができる。 場や相手に応じて常に適切に敬語を使うことができる。 電子メールや手紙の基本作法ーを理解し、常に適切に書くことができる。 具体的なエピソードに基づいて、効果的な自己PRをすることができる。 ネットを用いたコミュニケーションツールの特徴と危険性を意識しながら上手に使いこなすことができる。 インターネットでの情報の検索の仕方と、その注意点について理解して、質の高い情報を集めることができる。	目的や場に応じて適切な挨拶を心がけている。 場や相手に応じて適切に敬語を使うことを心がけている。 電子メールや手紙の基本作法ーを理解し、適切に書くことができる。 エピソードを入れて、自己PRをすることができる。 ネットを用いたコミュニケーションツールの特徴と危険性を理解することができる。 インターネットでの情報の検索の仕方と、その注意点について理解することができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	■科目ガイダンス ・科目の目的、内容、評価方法について理解する。 挨拶と人間関係 ・挨拶が人間関係や社会生活にどのような影響を及ぼしているかを理解し、自らの言語生活を検証する。	科目ガイダンス 講義と質疑 プリント配布	復習：配布プリントを再読し、学習教育目標や行動目標を確認する。	30
2 ／	待遇表現―敬語によるコミュニケーション ・尊敬語を理解し、適切に使えるようにする。	漢字小テスト① 実技①（挨拶） 講義と質疑 プリント配布 グループワーク	予習：尊敬語について調べる。 復習：教科書・ノートを見直す。	30
3 ／	待遇表現―敬語によるコミュニケーション ・謙譲語を理解し、適切に使えるようにする。	漢字小テスト② 講義と質疑 プリント配布 グループワーク 小テスト①返却	予習：謙譲語について調べる。 復習：教科書・ノートを見直す。	30
4 ／	待遇表現―敬語によるコミュニケーション ・誤った敬語表現を正しい敬語表現に改める。	敬語小テスト 講義と質疑 プリント配布 グループワーク 小テスト②返却	予習：誤りやすい敬語表現について調べる。 復習：教科書・ノートを見直す。	30
5 ／	面接―自分を知る ・自己分析やグループワークを通して、自分の長所や短所を理解し、言語化できるようにする。	漢字小テスト③ 講義と質疑 プリント配布 グループワーク 敬語小テスト返却	予習：自己分析について調べる。 復習：教科書・ノートを見直す。	30
6 ／	面接―相手を知る ・志望先の情報を集め、面接準備シートを作成する。	レポート①提出（面接準備シート） 講義と質疑 プリント配布 グループワーク 小テスト④返却	予習：志望先の情報を調べる。 復習：面接準備シートを見直す。	30
7 ／	面接―模擬面接をする ・伝わる話し方について理解し、面接における心構えと技術を習得する。 ・模擬面接を通して、面接の基本事項を学ぶ。	実技②（模擬面接） プリント配布 グループワーク レポート②返却	予習：模擬面接の練習をする。 復習：教科書・ノートを見直す。	30
8 ／	通信文を書き分ける ・さまざまな通信文の形式を理解する。 ・相手や目的に応じて適切な形式を選び、通信文を書く。	漢字小テスト④ 講義と質疑 プリント配布 グループワーク	予習：通信文の目的や形式について調べる。 復習：通信文を仕上げる。	30
9 ／	電子メール ・電子メールの特徴やマナーを理解し、適切な形式と内容で電子メール文書を作成する。	実技③（電子メール） 講義と質疑 プリント配布 グループワーク 漢字小テスト返却	予習：電子メールの書式について調べる。 復習：実技③（電子メール）を仕上げる。	30
10 ／	ネット社会との付き合い方 ・ネットを用いたコミュニケーションの特徴と使用する上での留意点を理解する。	漢字小テスト⑤ 講義と質疑 プリント配布 グループワーク	予習：ネットを用いたコミュニケーションをふりかえる。 復習：教科書・ノートを見直す。	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	メディアと情報 ・情報が編集されていることを理解する。 ・メディアごとに立場や条件が異なり、情報の伝え方が異なることを理解する。	漢字小テスト⑥ 講義と質疑 プリント配布 グループワーク 漢字小テスト⑤返却	予習：情報の編集目的や方法について調べる。 復習：教科書・ノートを見直す。	30
12 ／	ネットを活用した情報収集 ・インターネットでの情報検索の仕方と、その注意点について理解する。	講義と質疑 プリント配布 グループワーク 漢字小テスト⑥返却	予習：著作権について調べる。 復習：教科書・ノートを見直す。	30
13 ／	レポートを書くⅠ ・レポートの書き方を理解する。 ・引用の方法、参考文献や注の示し方を理解する。	講義と質疑 プリント配布 グループワーク	予習：レポートの目的や形式について調べる。 復習：教科書・ノートを見直す	30
14 ／	レポートを書くⅡ ・レポートのテーマを決め、焦点をしぼる。 ・客観的な根拠を集めて、文章構成・展開を考えながらレポートをまとめる。	レポート②提出 講義と質疑 プリント配布 グループワーク	予習：レポートのテーマについて考える。 復習：レポートを仕上げる。	30
15 ／	レポートを書くⅢ ・レポートを相互評価する。	講義と質疑 プリント配布 グループワーク ふりかえり	予習：レポートを見直す。 復習：相互評価を見直す。	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Expression I B	1	620400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAYLOR, James	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Writing	Students will come prepared to speak and write in English. To progress in the class, students will complete and submit tasks on time. Peer review and feedback are important parts of the writing process, so students will use every opportunity to communicate with classmates, and respect others' ideas and opinions. It is crucial to ask classmates or the teacher for help when necessary.
2	Essays	
3	Genre	
4	Journal	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

Students will consider what they learnt in English Expression I A and expand on their knowledge by continuing to learn about and practice the writing process, including planning and peer review, to write essays. Through the writing process and targeted language activities, students will gain the skills to describe their ideas logically in written English. Short writing tasks will be completed weekly for homework to give students further opportunities to practice expressing themselves. Students will learn and practice the skills and language to achieve high scores on academic writing tasks.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in written English.
Desire to improve writing skills through responding appropriately to receiving feedback and constructive criticism.
Work ethic to revise, edit, and rewrite drafts of an essay.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, f	Students will be able to develop sentences, paragraphs, and essays in response to issues and themes raised in class.
②	e	Students will be able to draw on cultural knowledge and personal experience to express themselves.
③	d, f, g	Students will be able to use planning techniques and peer review to develop their and others' work.
④	e, f	Students will be able to achieve clarity of thought by identifying the features of various genres of writing.
⑤	f, g	Students will be able to use rhetorical appeals to express thoughts and opinions and to persuade others.
⑥	e, f, i	Students will be able to investigate and discuss authors' intentions and meanings in various examples.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	80	0	20	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	5	0	0	25
	Ability to think, reason and create	0	0	20	0	5	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	20	0	5	0	0	25
	Attitude and motivation for learning	0	0	20	0	5	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will write 2 different genres of essay, which will be graded according on Process (25), Task Achievement (25), Cohesion (25), Coherence (25). Essays will be submitted online. Feedback will be given online before the following lesson. Students will complete Academic Writing Task 1 and Task 2 twice each. These will be graded on Task Achievement (9), Coherence & Cohesion (9), Lexical Resource (9), Grammar (9). Feedback will be given in writing and electronically at the start of the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will write a journal of at least 200 words on an assigned topic for homework after each of the first 14 lessons. The journals will be submitted online. Students will receive credit for journals of sufficient length submitted on time. Each journal is worth 10 points. Feedback will be given online before the following lesson.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students improve their writing drastically, go through the writing process, respond appropriately to feedback, and produce paragraphs of various genres that are logically structured, well argued, and supported by evidence from reliable sources. Students complete and submit all work on time. Students achieve high scores on academic writing tasks.	Students improve their writing to some extent, go through the writing process, respond to some feedback, and produce paragraphs of various genres that are for the most part logically structured, well argued, and supported by evidence from reliable sources. Students achieve reasonable scores on academic writing tasks.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Academic Writing Task 1 Introduction & Main Body: Students will consider how to write the introduction and main body of an academic writing task answer (graphs and charts).	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
2 /	Academic Writing Task 1 Main Body & Conclusion: Students will consider how to write the main body and conclusion of an academic writing task answer.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
3 /	Academic Writing Task 1 Practice: Students will attempt an academic writing task under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
4 /	Academic Writing Task 2 Introduction & Main Body: Students will consider how to write the introduction and main body of an academic writing task 2 answer (opinion).	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
5 /	Academic Writing Task 2 Main Body & Conclusion: Students will consider how to write the main body and conclusion of an academic writing task 2 answer.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
6 /	Academic Writing Task 2 Practice: Students will attempt an academic writing task under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
7 /	Opinion Essay 1: Students will review the features and structures of an opinion paragraph, review their own paragraph, then plan and write an opinion essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
8 /	Opinion Essay 2: Students will continue writing their opinion essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
9 /	Opinion Essay 3: Students will continue writing their opinion essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
10 /	Opinion Essay 4: Students will complete and submit their opinion essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Academic Writing: Students will review academic writing tasks 1 and 2, then attempt the tasks under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
12 /	Cause & Effect Essay 1: Students will review the features and structures of a cause and effect paragraph, review their own paragraph, then plan and write a cause and effect essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
13 /	Cause & Effect Essay 2: Students will continue writing their cause and effect essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
14 /	Cause & Effect Essay 3: Students will continue writing their cause and effect essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
15 /	Cause & Effect Essay 4: Students will complete and submit their cause and effect essay. Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work		

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本語基礎A Fundamental Japanese A	2	620900	前学期 1st semester	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	筒井　昌子 TSUTSUI, Masako	白山麓C 101,201		

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	日本語	キャンパスでの一般的な日常会話ができるようになるために、日本語の初級レベルの文型や文法の学習を踏まえた話す・聞く能力を高める学習を行う。 In order to be able to engage in general daily conversation on campus, students will learn to improve their speaking and listening skills based on the study of sentence patterns and grammar at the beginner level of Japanese.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

キャンパスでの生活における日常会話の習得を目指す。
この科目は、同学期に開講される「日本語ＩA」と連動しており、「日本語基礎A」では文法・文型の学習と会話・聴解技能向上、「日本語ＩA」では文字（漢字）・語彙の学習と読解・作文技能向上に主眼を置く。教材も共通のものを利用するが、成績については、それぞれの科目の重点技能の観点で評価を行う。単語クイズや漢字クイズについては「日本語ＩA」の学習活動として実施し、評価もそちらで行う。
教室で学習した語彙や表現を日常生活の中でも積極的に活用して、より自然な文脈での日本語使用に慣れるように努めることが、言語習得の早道である。

The aim of this course is to acquire daily conversation skills for life on campus.
This course is linked to "Japanese I A" which is offered in the same semester. The "Basic Japanese A" course focuses on learning grammar and sentence patterns and improving speaking and listening skills, while the "Japanese I A" course focuses on learning letters (Kanji) and vocabulary and improving reading and writing skills. While common teaching materials will be used, grades will be evaluated from the perspective of the key skills in each subject area. Vocabulary quizzes and Kanji quizzes will be conducted as learning activities in "Japanese IA" and will be evaluated accordingly.
Better way to language acquisition is to actively use the vocabulary and expressions learned in the classroom in everyday life and to become accustomed to using Japanese in a more natural context.

【教科書および参考書・リザーブドブック】
教科書：「初級日本語　とびらＩ」くろしお出版　2021　ISBN 978-4-87424-870-6
「初級日本語　とびらＩ　ワークブック１－ひらがな・カタカナ、かんじ、よむ、かく」くろしお出版　2022　ISBN 978-4-87424-910-9
「初級日本語　とびらＩ　ワークブック２－たんご、ぶんぽう、きく」くろしお出版　2023　ISBN 978-4-87424-950-5
参考書：なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

特になし

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e,i	ひらがな、カタカナが正しく読める。 Can read hiragana and katakana correctly.
②	e,i	テキストで学んだ文型や語彙が用いられた日本語表現を聞いて、意味を理解できる。 Can listen to and understand the meaning of Japanese expressions in which sentence patterns and vocabulary learned in the text are used.
③	e,i	テキストで学んだ文型や語彙を用いて話して、大まかに自分の意志を伝えることができる。 Can speak using sentence patterns and vocabulary learned in the text and communicate his/her intentions in broad strokes.
④	e,i	挨拶表現など、日本での習慣的な基本ルールを理解し行動で表現できる。 Understand the basic rules of Japanese customs, such as greetings and expressions, and express them through actions.
⑤		
⑥		

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	80	0	20	0	0	0	100
総合力指標	知識を取り込む力	0	40	0	0	0	0	0	40
	思考・推論・創造する力	0	0	0	0	0	0	0	0
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	40	0	20	0	0	0	60
	学習に取組む姿勢・意欲	0	0	0	0	0	0	0	0

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	2課ごとに、学習した文型・文法についての筆記テスト（一部、聴解問題含む）を学期中に4回実施する。成績は各回の点数をもとに平均点（%）を算出し、それを80点満点に換算する。 A written test on the grammar and sentence patterns studied in each of the two sections (including some listening comprehension questions) will be given four times during the semester. Grades will be calculated based on the average score (%) from each session, which will be converted to a perfect score of 80 points.
	②	レ	
	③	レ	
	④		
	⑤		
	⑥		
レポート	①		
	②		
	③		
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①		学期中に2回の会話テストを実施する。それまでに学習した文法、文型や語彙を用いて、会話のやり取りがどれだけ円滑にできるかを確認する。1回のテストを10点満点とし、正確さ（文法・文型、発音）とコミュニケーション（情報のやりとり）の達成度の観点で評価する。 Two conversation tests will be administered during the semester. Each test is worth 10 points and is evaluated in terms of accuracy (grammar, sentence structure, pronunciation) and achievement in communication (exchange of information).
	②	レ	
	③	レ	
	④		
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・助詞を正しく使って、学習した文型で文を産出できる。 ・自分が言いたいことを、学習した文型や語彙を用いて、いくつかの単文で表現できる。 -Can produce sentences using the learned sentence patterns with the correct use of particles. -Can express what he/she wants to say in several single sentences using the learned sentence patterns and vocabulary.	・時折、助詞の間違いなどはあるが、意味が通じる程度の正確さで学習した文型を産出できる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながら、いくつかの単文で表現できる。 -Can produce the learned sentence patterns with enough accuracy to make sense, despite occasional errors with particles. -Can express what he/she wants to say in a few single sentences with the help of native speakers on sentence structure and vocabulary.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	授業説明　Class Orientation Lesson 0 Introduction of Japanese Letter Pronunciation	講義・演習 Lecture・Practice	Classroom Expressionsを覚える Memorize Classroom Expressions 授業内容の復習 Review the course contents	30
2 ／	Lesson 0 Numbers Classroom Expressions Greetings Pronunciation Hiragana	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
3 ／	Lesson 0 More Numbers Introducing yourself Pronunciation of Special Sound. Hiragana	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
4 ／	Lesson 1 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
5 ／	Lesson 1 Grammar Can-do 2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
6 ／	Lesson 1 Grammar Can-do 3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
7 ／	Lesson 2 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
8 ／	Lesson 2 Grammar Can-do 2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
9 ／	Lesson 2 Grammar Can-do 3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook テスト準備 Prepare　for Test	30
10 ／	**Grammar Test #1(LL.1-2)** Review	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return	授業内容の復習 Review the course contents	15
11 ／	Lesson 3 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
12 ／	Lesson 3 Grammar Can-do 2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
13 ／	Lesson 3 Grammar Can-do 3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
14 ／	Lesson 4 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
15 ／	Lesson 4 Grammar Can-do 2,3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
16 ／	Lesson 4 Grammar Can-do 4 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook テスト準備 Prepare for Test	30
17 ／	**文法テスト #2 Grammar Test #2(LL.3-4)** **会話テスト #1 Speaking Test #1** Review	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return	授業内容の復習 Review the course contents	15
18 ／	Lesson 5 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
19 ／	Lesson 5 Grammar Can-do 2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
20 ／	Lesson 5 Grammar Can-do 3,4 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
21 ／	Lesson 6 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
22 ／	Lesson 6 Grammar Can-do 1,2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
23 ／	Lesson 6 Grammar Can-do 2,3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
24 ／	Lesson 6 Grammar Can-do 4,5 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook テスト準備 Prepare for Test	30
25 ／	**文法テスト #3 Grammar Test #3(LL.5-6)** Review	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return	授業内容の復習 Review the course contents	15
26 ／	Lesson 7 Grammar Can-do 1 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
27 ／	Lesson 7 Grammar Can-do 2 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
28 ／	Lesson 7 Grammar Can-do 3 Sp./L Practice	講義・演習 Lecture・Practice	ワークブック　Workbook	30
29 ／	Lesson 1 - 7 Review	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents テスト準備 Prepare for Test	30
30 ／	**文法テスト #3 Grammar Test #3(LL.6-7)** **会話テスト #2 Speaking Test #2** Review & Self Evaluation	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return		なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English A (Math)	2	621000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BASQUILL, Edward	Hakusanroku C: 101. 201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes the fundamental English language to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, or concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide academic support in STEM classes. As all the STEM courses are taught in English, which may cause you to face many challenges and even decrease motivation, the fundamentals gained in this course allow you to build up confidence and academic skills. Additionally, we advise you to use these skills outside of the classroom.
This course is divided into 4 sections: Chemistry, Physics, Math, and Engineering and Science.

(Math)
Lecture, exercise, pair-work, presentation.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinions, and plans. Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem-solving in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	40	20	0	0	0	0	60
	Ability to think, reason and create	0	20	10	0	0	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Each quiz will be given after a block of 3 classes. There are 4 quizzes throughout a semester. Total (100pts) = Physics (25pts) + Chemistry (25pts) + Engineering (25pts) + Math (25pts) The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		In order to review and evaluate your understanding and progress, you need to submit handouts. Submission rules depend on each teacher. The handouts will be returned in class after a quiz.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Engineering Airplane	Lecture Interactive activity Project-based	Read the syllabus Study vocabulary	20
2 /	Engineering Airplane ①	Project-based	Finish the review sheet	30
3 /	Numbers: Fractions (A) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30
4 /	Numbers: Fractions (B) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30
5 /	Operations: Verbs (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30
6 /	Operations: Verbs (B) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30
7 /	Reading formulae: Variables (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30
8 /	Reading formulae: Variables (B). Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review for Quiz 1	30
9 /	**Catch-up / Quiz 1**	Review and reflect	Review the vocabulary they learn; complete assignments	30
10 /	Numbers: Decimals (A) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary they learn; complete assignments	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Numbers: Decimals (B) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
12 /	Operations: Nouns (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
13 /	Operations: Nouns (B) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
14 /	Reading formulae: Using Conjunctions for Math (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
15 /	Reading formulae: Using Conjunctions for Math (B). Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Quiz 2 review	30
16 /	**Catch-up / Quiz 2**	Review and evaluate. your progress and understanding	Review the vocabulary; complete assignments	30
17 /	Numbers: Large Numbers (A) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
18 /	Numbers: Large Numbers (B) Exploring etymology of math vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
19 /	Operations: Differentiating Verbs/Nouns (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
20 /	Operations: Differentiating Verbs/Nouns (B) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Reading formulae: Explaining Solving Equations (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
22 /	Reading formulae: Explaining Solving Equations (B). Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Quiz 3 review module	30
23 /	**Catch-up / Quiz 3**	Review and evaluate. your progress and understanding	Study for a quiz / review the contents	30
24 /	Graphs: Types of graphs and lines (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
25 /	Graphs: Types of Graphs and Lines (B) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
26 /	Graphs: Explaining graphs and charts (A) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
27 /	Graphs: Explaining graphs and charts (B) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
28 /	Graphs: Explaining graphs and charts (C) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Review the vocabulary; complete assignments	30
29 /	Graphs: Explaining graphs and charts (D) Exploring etymology of the vocabulary.	Lecture, pair-work, and practice	Quiz 4 review	30
30 /	**Catch-up / Quiz 4**	Review and evaluate your progress and understanding	Study for a quiz/review the contents	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English A (Engineering and Science)	2	621000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	STEVENSON, Ian	Hakusanroku C: 101. 201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes the fundamental English language to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, or concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide academic support in STEM classes. As all the STEM courses are taught in English, which may cause you to face many challenges and even decrease motivation, the fundamentals gained in this course allow you to build confidence and academic skills. Additionally, we advise you to use these skills outside of the classroom.
This course is divided into 4 sections; Chemistry, Physics, Math, and Engineering and Science.

(Engineering and Science)
Lecture, exercises, pair-work, presentation

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem-solving skills in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	40	20	0	0	0	0	60
	Ability to think, reason and create	0	20	10	0	0	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Each quiz will be given after a block of 3 classes. There are 4 quizzes throughout a semester. Total (100pts) = Physics (25pts) + Chemistry (25pts) + Engineering and Science (25pts) + Math (25pts) The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		In order to review and evaluate your understanding and progress, you need to submit handouts. Submission rules depend on each teacher. The handouts will be returned in class after a quiz.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Engineering Airplane	Lecture Interactive activity Project based	Read the syllabus Study vocabulary	20
2 /	Engineering Airplane ①	Lecture Interactive activity Project based	Finish the review sheet	30
3 /	Design ①	Lecture Interactive activity	Review the content Complete the assignment	30
4 /	Design ①	Lecture Interactive activity	Review the content Complete the assignment	30
5 /	Design ②	Lecture Interactive activity	Review the content Complete the assignment	30
6 /	Design ②	Lecture Interactive activity	Review the content Complete the assignment	30
7 /	Prototyping ①	Lecture Interactive activity	Review the content Complete the assignment	30
8 /	Prototyping ①	Lecture Interactive activity	Review the content Complete the assignment	30
9 /	**Catch-up / Quiz** 1	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
10 /	Prototyping ②	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Prototyping ②	Lecture Interactive activity	Review the content Complete the assignment	30
12 /	Presenting ① Explaining your prototype to another engineer	Lecture Interactive activity	Review the content Complete the assignment	30
13 /	Presenting ①	Lecture Interactive activity	Review the content Complete the assignment	30
14 /	Presenting ②	Lecture Interactive activity	Review the content Complete the assignment	30
15 /	Presenting ②	Lecture Interactive activity	Review the content Complete the assignment	30
16 /	**Catch-up / Quiz** 2	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
17 /	Computer Skills ①	Lecture Interactive activity	Review the content Complete the assignment	30
18 /	Computer Skills ①	Lecture Interactive activity	Review the content Complete the assignment	30
19 /	Computer Skills ②	Lecture Interactive activity	Review the content Complete the assignment	30
20 /	Computer Skills ②	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Computer Issues ①	Lecture Interactive activity	Review the content Complete the assignment	30
22 /	Computer Issues ①	Lecture Interactive activity	Review the content Complete the assignment	30
23 /	**Catch-up / Quiz 3**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
24 /	Computer Issues ②	Lecture Interactive activity	Review the content Complete the assignment	30
25 /	Computer Issues ②	Lecture Interactive activity	Review the content Complete the assignment	30
26 /	Poster Presentation ① Developing the necessary computer skills to make a good poster	Lecture Interactive activity	Review the content Complete the assignment	30
27 /	Poster Presentation ①	Lecture Interactive activity	Review the content Complete the assignment	30
28 /	Poster Presentation ②	Lecture Interactive activity	Review the content Complete the assignment	30
29 /	Poster Presentation ②	Lecture Interactive activity	Review the content Complete the assignment	30
30 /	**Catch-up / Quiz 4**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English A (Chemistry)	2	612000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BAIRD, Pauline	Hakusanroku C: 101. 201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes the fundamental English language to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, or concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide the academic support in STEM classes. As all the STEM courses are taught in English, which may cause you to face many challenges and even decrease motivation, the fundamentals gained in this course allow you to build up confidence and academic skills. Additionally, we advise you to use these skills outside of the classroom.
This course is divided into 4 sections; Chemistry, Physics, Math, and Engineering and Science.

(Chemistry)
Lecture, exercise, pair-work, presentation,
You need to submit all the handouts on the day of the quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinions, and plans. Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem-solving skills in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	0	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	0	0	10	0	45
	Ability to think, reason and create	0	30	5	0	0	0	0	35
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Each quiz will be given after a block of classes. There are 4 quizzes throughout a semester. Total (100pts) = Physics (25pts) + Chemistry (25pts) + Engineering (25pts) + Math (25pts) The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		In order to review and evaluate your understanding and progress, you need to submit handouts. Please submit your reports (handouts, homework, comments, and class assignments) in class right before the quiz. (20%) The graded handouts will be returned in class after a quiz.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		The Portfolio is a folder that contains ALL your reports. Please arrange it nicely. Make sure you correct all your mistakes in it (20%).
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Engineering Airplane	Lecture Interactive activity Project-based	Read the syllabus Study vocabulary	20
2 /	Engineering Airplane ①	Lecture Interactive activity Project-based	Finish the review sheet	30
3 /	Module 1: Exploring Chemistry Common Instructions Identify: Describe, define, list, label. Match, write short notes, discuss, complete, submit, email, upload. ①	Lecture Interactive activity	Review the content Complete the assignment	30
4 /	Common Instructions in STEM ①	Lecture Interactive activity	Review the content Complete the assignment	30
5 /	Common Instructions in STEM ②	Lecture Interactive activity	Review the content Complete the assignment	30
6 /	Common Instructions in STEM ② Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30
7 /	Module 2: Thinking Like a Scientist Skimming, scanning, and annotating ①	Lecture Interactive activity	Review the content Complete the assignment	30
8 /	Skimming, scanning, and annotating ①	Lecture Interactive activity	Review the content Complete the assignment	30
9 /	**Catch-up / Quiz** 1	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
10 /	Skimming, scanning, and annotating ②	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Skimming, scanning, and annotating ② Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30
12 /	Module 3: Properties of Matter Defining, classifying, describing pp. 34-35 ①	Lecture Interactive activity	Review the content Complete the assignment	30
13 /	Defining, classifying, describing pp. 34-35 ①	Lecture Interactive activity	Review the content Complete the assignment	30
14 /	Vocabulary building, summarizing pp. 34-35 ②	Lecture Interactive activity	Review the content Complete the assignment	30
15 /	Vocabulary building, summarizing pp. 34-35 ② Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30
16 /	**Catch-up / Quiz 2**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
17 /	Module 4: Matter and Change: Reading and Comprehension pp. 38-39 ①	Lecture Interactive activity	Review the content Complete the assignment	30
18 /	Reading and Comprehension pp. 38-39 ①	Lecture Interactive activity	Review the content Complete the assignment	30
19 /	Defining and Making Comparison pp: 39-40 ②	Lecture Interactive activity	Review the content Complete the assignment	30
20 /	Defining and Making Comparison pp: 39-40 ② Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Matter and Change ③ Reading Comprehension pp. 41-42 Annotating & summarizing	Lecture Interactive activity	Review the content Complete the assignment	30
22 /	Matter and Change ③ Reading pp. 41-42 Annotating & summarizing Using adjectives (comparison) Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30
23 /	**Catch-up / Quiz 3** ③	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
24 /	<u>Module 5:</u> Describing Process and Results ① Reading pp. 40 Short report, steps in a process	Lecture Interactive activity	Review the content Complete the assignment	30
25 /	Reading pp. 40 ① Short report, steps in a process	Lecture Interactive activity	Review the content Complete the assignment	30
26 /	Reading pp. 52 ② Summarizing a process	Lecture Interactive activity	Review the content Complete the assignment	30
27 /	Reading pp. 52 ② Summarizing a process	Lecture Interactive activity	Review the content Complete the assignment	30
28 /	Reading pp. 52 ③ Summarizing a process & Documenting APA	Lecture Interactive activity	Review the content Complete the assignment	30
29 /	Reading pp. 52 ③ Summarizing a process & Documenting APA Comment: Unit KLW (Knew, Learned, Want to know)	Lecture Interactive activity	Review the content Complete the assignment	30
30 /	**Catch-up / Quiz 4**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English A (Physics)	2	621000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TSUDA, Akihiro	Hakusanroku C: 101. 201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes the fundamental English language to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, or concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide the academic support in STEM classes. As all the STEM courses are taught in English, which may cause you to face many challenges and even decrease motivation, the fundamentals gained in this course allow you to build up confidence and academic skills. Additionally, we advise you to use these skills outside of the classroom.
This course is divided into 4 sections; Chemistry, Physics, Math, and Engineering and Science.

(Physics)
Lecture, exercise, pair-work, presentation,
You need to submit all the handouts after a quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem solving skills in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	40	20	0	0	0	0	60
	Ability to think, reason and create	0	20	10	0	0	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Each quiz will be given after a block of 3 classes. There are 4 quizzes throughout a semester. Total (100pts) = Physics (25pts) + Chemistry (25pts) + Engineering (25pts) + Math (25pts) The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		In order to review and evaluate your understanding and progress, you need to submit handouts. Submission rules depend on each teacher. The handouts will be returned in class after a quiz.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Engineering Airplane	Lecture Interactive activity Project based	Read the syllabus Study vocabulary	20
2 /	Engineering Airplane ①	Lecture Interactive activity Project based	Finish the review sheet	30
3 /	Shape ①	Lecture Interactive activity	Review the content Complete the assignment	30
4 /	Shape ①	Lecture Interactive activity	Review the content Complete the assignment	30
5 /	Shape ②	Lecture Interactive activity	Review the content Complete the assignment	30
6 /	Shape ②	Lecture Interactive activity	Review the content Complete the assignment	30
7 /	Force ①	Lecture Interactive activity	Review the content Complete the assignment	30
8 /	Force ①	Lecture Interactive activity	Review the content Complete the assignment	30
9 /	**Catch-up / Quiz** 1	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
10 /	Force ②	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Force ②	Lecture Interactive activity	Review the content Complete the assignment	30
12 /	Inertia ①	Lecture Interactive activity	Review the content Complete the assignment	30
13 /	Inertia ①	Lecture Interactive activity	Review the content Complete the assignment	30
14 /	Inertia ②	Lecture Interactive activity	Review the content Complete the assignment	30
15 /	Inertia ②	Lecture Interactive activity	Review the content Complete the assignment	30
16 /	**Catch-up / Quiz 2**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
17 /	Movement/Actions ①	Lecture Interactive activity	Review the content Complete the assignment	30
18 /	Movement/Actions ①	Lecture Interactive activity	Review the content Complete the assignment	30
19 /	Movement/Actions ②	Lecture Interactive activity	Review the content Complete the assignment	30
20 /	Movement/Actions ②	Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Heat ①	Lecture Interactive activity	Review the content Complete the assignment	30
22 /	Heat ①	Lecture Interactive activity	Review the content Complete the assignment	30
23 /	**Catch-up / Quiz 3**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30
24 /	Heat ②	Lecture Interactive activity	Review the content Complete the assignment	30
25 /	Heat ②	Lecture Interactive activity	Review the content Complete the assignment	30
26 /	Describing an experiment ①	Lecture Interactive activity	Review the content Complete the assignment	30
27 /	Describing an experiment ①	Lecture Interactive activity	Review the content Complete the assignment	30
28 /	Describing an experiment ②	Lecture Interactive activity	Review the content Complete the assignment	30
29 /	Describing an experiment ②	Lecture Interactive activity	Review the content Complete the assignment	30
30 /	**Catch-up / Quiz 4**	Review and evaluate your progress and understanding	Study for a quiz / review the contents	30

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本文学	1	621100	前学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	黒田　譜美	白山麓C 101.201		水曜　15:00-16:00

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	日本文学	小説、随筆、評論、詩、俳句、和歌、漢詩など多種多様な文学作品を読むことを通して、日本の言語文化の特質や外国の文化との関係について理解を深める。作品が成立した歴史的・文化的背景を調べたり、作中の抽象表現や描写に留意したりしながら、作者の考えや登場人物の心情を丁寧に読み進め、作品の語りかけるものを的確に把握する読解力・鑑賞力を鍛える。また、情景の豊かさや心情の機微を表す語句の量を増し、文章の中で使うことを通して、語感を磨き語彙を豊かにする。
2	読解力	
3	思考力	
4	表現力	
5		

授業の概要および学習上の助言

授業の概要：

本授業では主に下記作品を扱う。

『古事記』、『源氏物語』、『論語』、『荘子』、山崎正和『水の東西』、谷崎潤一郎『陰翳礼讃』、夏目漱石『夢十夜』、『こころ』

学習上の助言：

・ノートは板書したものだけではなく、口頭での説明も書くようにすること。
・課題は必ず実行すること。
・辞書は必ず用意すること。また、辞書を常に引くように心がけ、知らない言葉を確認し、着実に身につけること。
・対象作品は徹底的に読み込むこと。
・さまざまなジャンルの書物を読むよう心がけること。

【教科書および参考書・リザーブドブック】

教科書：中島国彦監修『文学のとびらを開く　近現代文学名作選』明治書院(ISBN：978-4-625-28350-5)

参考書：指定なし

ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：指定なし

履修に必要な予備知識や技能

日本語検定4級（中学校卒業）程度の日本語能力を身につけている。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	f	語句の意味を正しく理解し、正確に読むことができる。
②	f	作品の構成や展開の仕方を的確に捉え、説明することができる。
③	f	人物の心理の推移について、作品の展開に即して読み取ることができる。
④	e,f	作品が成立した背景や他の作品との関係を踏まえ、作品の解釈を深めることができる。
⑤	e,f	主張や感動などが効果的に伝わるように、構成や表現を工夫して書くことができる。
⑥	f.i	読書の意義と効用について理解を深め、読書経験を重ねることができる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	20	40	20	0	20	0	100
総合力指標	知識を取り込む力	0	20	0	0	0	10	0	30
	思考・推論・創造する力	0	0	20	0	0	0	0	20
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	20	10	0	0	0	30
	学習に取組む姿勢・意欲	0	0	0	10	0	10	0	20

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	小テストは2回行い、各10点計20点とする。 ①山崎正和「水の東西」に関する語彙、読解 ②谷崎潤一郎「陰翳礼讃」に関する語彙、読解
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
レポート	①		レポートは2回課し、各20点計40点とする。 ①日本文化論 ②書評 ※固有名詞のかな書き・誤字・脱字は減点する。
	②		
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
成果発表 （口頭・実技）	①	レ	成果発表を1回行い、20点とする。 ①文学作品のプレゼンテーション
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	レ	授業記録を2回提出し、各10点とする。 ①『源氏物語』 ②『論語』
	②	レ	
	③	レ	
	④		
	⑤		
	⑥	レ	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
■小テスト 読解に必要な漢字・語句の知識がある。 自ら文献を調べ、作品に関する知識を得ることができる。 正確に読解し、問いに対して的確に解答できる。 論拠を示して、独自の解釈を述べることができる。 ■レポート・成果発表 自分にひきつけて考え、独自の視点が入っている。 明快な文章構成、効果的な文章表現ができる。 多様な作品を読み、ものの見方や考え方を豊かにすることができる。	■小テスト 読解に必要な漢字・語句の知識がある。 教材を読み、作品に関する知識がある。 正確に読解し、問いに対して解答できる。 講義をふまえ、自分の解釈を述べることができる。 ■レポート・成果発表 講義や意見交換をもとに、自分の考えをまとめることができる。 文章構成や文章表現を工夫できる。 作品を読み、ものの見方や考え方を広げることができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	■科目ガイダンス ・科目の目的、内容、評価方法について理解する。 過去に鑑賞した作品について話し合う。	講義と質疑 プリント配布	配布プリントやノートを再読し、理解を深める。（復習）	30
2 ／	古典：『古事記』/『源氏物語』 ・作品概要を把握する。 ・古典と創作の関係を理解する。	授業記録提出① 講義と質疑 プリント配布	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
3 ／	古典：『論語』/『荘子』 ・本文を読み、思想の違いを理解する。 ・漢字文化の伝播と受容について理解する。	授業記録提出② 講義と質疑 プリント配布	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
4 ／	随筆：山崎正和「水の東西」 ・対比的な構成をとりながら論をすすめる展開の仕方を理解する。 ・筆者の日本的感性を理解し、自分の日本的なものの見方とどう違っていたかを話し合う。	講義と質疑 プリント配布 グループワーク	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
5 ／	随筆：谷崎潤一郎「陰翳礼讃」 ・筆者が対比して論じているものを整理する。 ・現代社会において「闇」を巧みに活用している例を挙げ、どのような効果があるか考え、話し合う。	第１回小テスト 講義と質疑 プリント配布 グループワーク	小テストの学習をする。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
6 ／	随筆：谷崎潤一郎「陰翳礼讃」 ・小テストで語彙・読解を確認する。 ・聴覚・触覚・味覚・嗅覚など視覚以外の五感の働きに焦点をあて、日本文化論を書く。	講義と質疑 プリント配布 グループワーク 小テスト返却	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
7 ／	【演習】 ・レポート（エッセイ）に取り組む。	第２回小テスト レポート提出 プリント配布 グループワーク	小テストの学習をする。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
8 ／	【発表】 ・作品を発表し、相互評価する。	講義と質疑 プリント配布 小テスト返却	発表の準備をする。（予習） 相互評価を見直し、自己点検を行う（復習）	30
9 ／	小説：夏目漱石『夢十夜』 ・作者の経歴や作風について理解する。 ・第一夜を読み、感想を述べる。	講義と質疑 プリント配布 グループワーク	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
10 ／	小説：夏目漱石『こころ』 ・作品の構成や人物の特徴について理解する。	講義と質疑 プリント配布 グループワーク	授業で指定された部分を読解し、語句を整理する。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	小説：夏目漱石『こころ』 ・「私」の心情変化を読み取る。	講義と質疑 プリント配布 グループワーク	授業で指定された部分を読解し、語句を整理する。（予習） 相互評価を見直し、自己点検を行う（復習）	30
12 ／	小説：夏目漱石『こころ』 ・Kの死因および作品名の意味を考察する。	講義と質疑 プリント配布 グループワーク	小テストの学習をする。（予習） 配布プリントやノートを再読し、理解を深める。（復習）	30
13 ／	小説：夏目漱石『こころ』 ・作品に「私」が二人いる意味を考察する。 ・「現代日本の開化」を読み、時代背景や作者の考えを理解する。	課題②提出 講義と質疑 プリント配布 グループワーク	課題を仕上げる。（予習） 相互評価を見直す。（復習）	30
14 ／	【演習】 ・プレゼンテーション資料の作成に取り組む。	プリント配布 グループワーク	プレゼンテーション資料の準備をする（予習） プレゼンテーション資料を仕上げる。（復習）	30
15 ／	【発表】 ・プレゼンテーションを行い、相互評価する。	成果発表① プリント配布 アンケート実施	発表の準備をする。（予習） 相互評価を見直し、自己点検を行う。（復習）	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Literature	1	621200	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAYLOR, James	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Literature	Students will be able to familiarise themselves with English literature of various genres. Students will engage critically with the literature by reading, listening and watching. Students will discuss and analyse the literature orally and in writing, and consider its place in contemporary and modern society.
2	Discussion	
3	Analysis	
4	Writing	
5		

Course Description and Expectations for Students (10.5pt)

Students will consider the features of 5 genres of literature in English: short fiction; poetry; wordless picturebooks; drama; and protest songs. Through a mixture of teacher-led and self-directed activities involving reading, listening, and watching, students will gain the skills necessary to engage critically with each piece of literature. Students will prepare for and participate in class discussions, and will produce written work in response to the literature. Students will be able to analyse the technical aspects of the literature in addition to placing it in its contemporary context and connecting it to modern society.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in written and spoken English.
Ability to read and understand an English text.
Ability to listen to and understand spoken English.
Work ethic to complete and submit tasks on time.
Initiative to ask for help when necessary.

No.	Program Objectives	Target Abilities for Students (9pt)
①	e, f, g, i	Students will be able to identify and explain the features and technical aspects of various genres of literature.
②	e, f, g, i	Students will be able to analyse, discuss, and respond to literature of various genres orally.
③	e, f, g, i	Students will be able to analyse, discuss, and respond to literature of various genres in writing.
④	e, f, g, i	Students will be able to consider the contemporary society of the literature they study.
⑤	e, f, g, i	Students will be able to connect the literature they study to modern society.
⑥	e, f, g, i	Students will be able to introduce and discuss literature of their own choosing.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	50	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	13	13	0	0	0	26
	Ability to think, reason and create	0	0	12	12	0	0	0	24
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	13	13	0	0	0	26
	Attitude and motivation for learning	0	0	12	12	0	0	0	24

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will produce 5 pieces of written work (1 per unit) in response to the literature studied. The tasks will be graded according to the following criteria: Task Achievement, Lexical Resource (Vocabulary), Grammatical Range and Accuracy, Coherence and Cohesion. Tasks will be submitted online. Feedback will be given online before the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will produce 5 pieces of oral work (1 per unit) in response to the literature studied. The tasks will be graded according to the following criteria: Task Achievement, Lexical Resource (Vocabulary), Grammatical Range and Accuracy, Coherence and Cohesion, Pronunciation. Tasks will be done in class or submitted online. Feedback will be given in person or online before the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will engage critically with the literature on a deep level to analyse the literature and its connections to contemporary and modern society in detail. Students will participate actively in class discussions by asking and answering questions. Students will submit detailed written tasks on time.	Students will engage with the literature on a superficial level to analyse the literature and its connections to contemporary and modern society in some detail. Students will participate in class discussions to some extent. Students will submit written tasks on time.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: students will read the syllabus. Students will discuss literature in general terms. Unit 1: Short Fiction (1) Students will be introduced to short fiction as a genre.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations)	30
2 /	Unit 1: Short Fiction (2) Students will read, analyse, and discuss a piece of short fiction.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations) and written task (Reports)	30
3 /	Unit 1: Short Fiction (3) Students will consider the contemporary society of the short fiction and its implications for modern society.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Complete and submit written task (Reports)	30
4 /	Unit 2: Poetry (1) Students will be introduced to poetry as a genre and technical terms for analysing poems.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations)	30
5 /	Unit 2: Poetry (2) Students will read, analyse, and discuss poetry.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations) and written task (Reports)	30
6 /	Unit 2: Poetry (3) Students will consider the contemporary society of the poetry and its implications for modern society.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Complete and submit written task (Reports)	30
7 /	Unit 3: Wordless Picturebooks (1) Students will be introduced to wordless picturebooks as a genre.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations)	30
8 /	Unit 3: Wordless Picturebooks (2) Students will read, analyse, and discuss wordless picturebooks.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations) and written task (Reports)	30
9 /	Unit 3: Wordless Picturebooks (3) Students will consider the contemporary society of the wordless picturebooks and their implications for modern society.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Complete and submit written task (Reports)	30
10 /	Unit 4: Drama (1) Students will be introduced to drama as a genre.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations)	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Unit 4: Drama (2) Students will read, watch, analyse, and discuss scenes from a play.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations) and written task (Reports)	30
12 /	Unit 4: Drama (3) Students will consider the contemporary society of the play and its implications for modern society.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Complete and submit written task (Reports)	30
13 /	Unit 5: Protest Songs (1) Students will be introduced to protest songs as a genre.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations)	30
14 /	Unit 5: Protest Songs (2) Students will read, listen to, analyse, and discuss protest songs.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Prepare for oral task (Presentations) and written task (Reports)	30
15 /	Unit 5: Protest Songs (3) Students will consider the contemporary society of selected protest songs and their implications for modern society. Review: students will reflect on the course.	Worksheets, videos, discussion, writing, individual work, pair work, group work	Complete and submit written task (Reports)	30

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本語基礎B Fundamental Japanese B	1	621300	後学期 2nd sementer	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	筒井　昌子 TSUTSUI, Masako	白山麓C 101,201		

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	日本語	この科目では、先学期開講した「日本語基礎A」「日本語ＩA」から継続して、日常の日本語でのコミュニケーション能力に関して、四技能を総合的に向上させることをめざす。 In this course, continuing from "Basic Japanese A" and "Japanese I A" offered in the previous semester, we aim to comprehensively improve the four skills of daily communication in Japanese.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

先学期に引き続き「日本語基礎B」で会話能力を「日本語ＩB」で読み書きの能力の向上を目指す。
語彙クイズや漢字クイズについては「日本語ＩB」の学習活動として実施し、評価もそちらで行う。

Continuing from last semester, students mastered conversational skills in "Basic Japanese B" and reading and writing skills in "Japanese IB". Vocabulary quizzes and Kanji quizzes will be conducted as a learning activity in "Japanese IB" and will be evaluated there as well.

【教科書および参考書・リザーブドブック】
教科書：「いろどり　生活の日本語　初級１」オンラインテキスト
　　「漢字たまご　初中級」9784867460238

参考書：なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

特になし

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e,i	テキストで学んだ文型や語彙を用いて話して、大まかに自分の意志を伝えることができる。 Can speak using sentence patterns and vocabulary learned in the text and communicate his/her intentions in broad strokes.
②	e,i	テキストで学んだ文型や語彙が用いられた日本語表現を読んだり聞いたりして、意味を理解できる。 Can read or listen to and understand the meaning of Japanese expressions in which sentence patterns and vocabulary learned in the text are used.
③	e,i	挨拶表現など、日本での習慣的な基本ルールを理解し行動で表現できる。 Understand the basic rules of Japanese customs, such as greetings and expressions, and express them through actions.
④		
⑤		
⑥		

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	80	0	20	0	0	0	100
総合力指標	知識を取り込む力	0	40	0	0	0	0	0	40
	思考・推論・創造する力	0	20	0	0	0	0	0	20
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	20	0	20	0	0	0	40
	学習に取組む姿勢・意欲	0	0	0	0	0	0	0	0

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評 価 方 法	行動目標		評 価 の 実 施 方 法 と 注 意 点
試 験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・学習した文型・文法を使用した会話表現の筆記テスト実施する。評価割合を全体の80%とする。 . ※テストの回数は授業初日に学習者とともに決定する。 -A written test will be given on conversational expressions using the grammar and sentence patterns learned in the course. The percentage of evaluation will be 80% of the total. *The number of test will be decided with the students on the first day of class.
	②	レ	
	③		
	④		
	⑤		
	⑥		
レポート	①		
	②		
	③		
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①	レ	・口頭会話テストを実施する。それまでに学習した文法、文型や語彙を用いて、会話のやり取りがどれだけ円滑にできるかを確認する。正確さ（文法・文型、発音）とコミュニケーション（情報のやりとり）の達成度の観点で評価する。評価割合を20%とする。 -An oral conversation test will be administered. To check how smoothly students can exchange conversation using the grammar, sentence patterns and vocabulary they have learned up to that point. Evaluation will be made in terms of accuracy (grammar, sentence structure, pronunciation) and communication (exchange of information) achievement. The evaluation percentage will be 20%. *The number of test will be decided with the students on the first day of class.
	②	レ	
	③	レ	
	④		
	⑤		
	⑥		
作 品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・母語の影響は若干あるものの、ネイティブスピーカーが聞いて意味がわかる程度に、日本語の発音やアクセントを駆使できる。 ・助詞を正しく使って、学習した文型で文を産出できる。 ・自分が言いたいことを、学習した文型や語彙を用いていくつかの単文で表現できる。 -Able to use Japanese pronunciation and accent to the extent that native speakers can understand the meaning, although there is some influence from their native language. -Can produce sentences using the learned sentence patterns with correct use of particles. -Can express what he/she wants to say in several single sentences using the learned sentence patterns and vocabulary.	・ネイティブスピーカーがある程度意味を推測する必要はあるが、意思疎通ができる程度に日本語の発音やアクセントを使い分けることができる。 ・時折、助詞の間違いなどはあるが、意味が通じる程度の正確さで学習した文型を産出できる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながらいくつかの単文で表現できる。 -The ability to use Japanese pronunciation and accent to the extent that native speakers can communicate with each other, although they need to guess the meaning to some extent. -Can produce learned sentence patterns with enough accuracy to communicate meaning, although there are occasional errors with particles. -Can express what he/she wants to say in a few single sentences with the help of native speakers in terms of sentence structure and vocabulary.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	Class Orientation Review on the previous studies Q&A Conversation Planning for the class schedule	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画書の仕上げと確認 Finalizing and confirming the study plan	15
2 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
3 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
4 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
5 ／	Textbook (Follow study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan テストの準備 Prepare for the test	30
6 ／	Textbook (Follow study plan) Test (not fixed)	講義・演習 Lecture・Practice テストの採点・返却 Grading and return of test	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
7 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
8 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
9 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan テストの準備 Prepare for the test	30
10 ／	Textbook (Follow own study plan) Test (not fixed)	講義・演習 Lecture・Practice テストの採点・返却 Grading and return of test	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
11 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
12 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
13 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan テストの準備 Prepare for the test	30
14 ／	Textbook (Follow own study plan) Test (not fixed)	講義・演習 Lecture・Practice テストの採点・返却 Grading and return of test	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
15 ／	Reflection & Self Evaluation	講義・演習 Lecture・Practice		なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English B (Academic Study Preparation)	1	621400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BAIRD, Pauline	Hakusanroku C: 101. 201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes fundamental English language and academic English skill building to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, grammar, and writing & presenting concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide academic support in STEM classes. As all the STEM courses are taught in English, this course is designed to support your study. The fundamentals gained in this course allow you to build confidence, motivation, and academic skills. Additionally, we advise you to use these skills outside of the classroom. This course is divided into 2 sections: Academic Study Preparation (Critical Thinking & Presenting) and English Basics for STEM.

Lecture, exercise, pair-work, presentation, quizzes.
You must keep and submit all your handouts and assignments in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students have completed Bridge English 1: have the ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinions, and plans. Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem-solving skills in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	5	0	15	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	0	0	8	0	43
	Ability to think, reason and create	0	30	5	5	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	7	0	7

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be given regularly throughout the semester. You will have a total of 5 quizzes. The results will be returned in class the following week. You must schedule a makeup quiz with the teacher if your quiz score is below 60%. Your makeup score may enable you to reach the required passing score of up to 60%.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		Reports are (20%). Please submit handouts, completed homework, class assignments, and other materials that you used to review and evaluate your understanding and progress. The graded reports will be returned at the next class meeting day.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		Presentations (5%). With the teacher's help and modeling, you will prepare and use language for presentations.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		The Portfolio (15%) is a folder that contains ALL your reports. Please arrange it nicely. Make sure you correct all your mistakes in it. Also, on the first page of your portfolio, you will write a personal reflection. Write 3 points about progress: ① What I Learned, ② What I Want to Know and Why, ③ What I Want to Study More/Next or Questions I Have and Why.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply any and all literacy skills to understand academic and non-academic texts in and out of class. Students can compose and organize ideas logically.	Students can use experience, examples, and reading and critical thinking skills to understand materials and encounters in and out of class.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Orientation	Lecture Interactive activity	Read the syllabus Study vocabulary	20
2 /	**Lecture and Note-taking** Analyzing and organizing information from academic texts and lectures • Graphic Organizer • Keywords, Main idea	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
3 /	Quiz 1 (Graphic Organizer from video talk) & Organization of ideas in lectures • Graphic Organizer • Keywords, Main idea, Summary	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
4 /	Information recall and critical thinking Discussion and Summary.	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
5 /	Quiz 2 (Graphic organizer from text) & **Organizing and Composing** Academic Document Formatting and design: • Title, Headings, Sub-headings, Pagination, Paragraphing, References.	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
6 /	Academic composition design: • Main Idea • Evidence • Analysis • Linking the conclusion	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
7 /	Quiz 3 (Organizing and reporting) & **Discussing and Demonstrating** Information recall and critical thinking Discussion and Summary.	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
8 /	Information recall and critical thinking Discussion and Summary.	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
9 /	Quiz 4 (Summarizing, and referencing) & Reporting Research • Signaling and Direct Quotation • Referencing web sources- APA	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
10 /	Reporting Research • Signaling and Direct Quotation • Referencing web sources- APA	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

11 /	Quiz 5 (Making a Research Question, answering and citing) & **Seminar**: Part I • Topics in STEM in Everyday Life • Write a Research Question • Find supporting information online	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
12 /	Seminar: Part II (Practice Composing • Prepare a podcast on STEM in Everyday Life	Workshop / Lecture Interactive activity	Review the content Complete the assignment	30
13 /	Seminar: Part III (Practice Composing) • Language for Presentation • Organizing information and Critical thinking • Practicing	Review and evaluate your progress and understanding & Workshop / Lecture Interactive activity	Review the content Complete the assignment *Prepare Portfolio*	30
14 /	Seminar: Part III (Practice Presenting) - Podcast on Zoom - *Preparing Portfolio reflections*	Workshop	Review the content Complete the assignment *Prepare Portfolio*	30
15 /	Seminar: Presenting (3-5 mins) *Submit Portfolio* & Self-Evaluation	Presenting	Prepare Presentation	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Bridge English B (Learning English through STEM Topics)	1	621400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	UTSUNOMIYA, Takako	Hakusanroku C: 101. 201		By appointment

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	STEM	This course emphasizes fundamental English language and academic English skill building to support all the STEM courses conducted in English in the 1st and 2nd year. The main purpose of it is for students to be able to succeed in the content courses as they learn how to address and approach the challenges such as scientific terminology, expressions, grammar, and writing & presenting concepts in English.
2	Engineering	
3	Study Skills	
4		
5		

Course Description and Expectations for Students (10.5pt)

The main purpose is to provide academic support in STEM classes. As all the STEM courses are taught in English, this course is designed to support your study. The fundamentals gained in this course allow you to build confidence, motivation, and academic skills. Additionally, we advise you to use these skills outside of the classroom. This course is divided into 2 sections: Academic Study Preparation (Critical Thinking & Presenting) and Learning English through STEM Topics.

Lecture, exercise, pair-work, presentation, quizzes.
You must keep and submit all your handouts and assignments in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students have completed Bridge English A: have the ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinions, and plans.
Can also ask questions, read simple instructions, and take directions.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to improve their vocabulary in order to succeed in their STEM classes.
②	h	Students will be able to use scientific language and expressions needed in their STEM classes.
③	h, d	Students will be able to develop problem-solving skills in order to take responsibility for their own learning.
④	i	Students will be able to develop a broader mindset from the content they study in their classes.
⑤	i	Students will be able to increase their knowledge about the content they study.
⑥	i	Students will be able to understand each grammatical point.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	25	15	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	10	5	0	0	0	45
	Ability to think, reason and create	0	30	5	5	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	5	0	0	0	15
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be given regularly throughout the semester. You will have a total of 6 quizzes. The results will be returned in class the following week. You must schedule a makeup quiz with the teacher if your quiz score is below 60%. Your makeup score may enable you to reach the required passing score of up to 60%.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥	✓	
Reports	①		Reports are (25%). Please submit handouts, completed homework, and class assignments and other materials that you used to review and evaluate your understanding and progress. The graded reports will be returned at the next class meeting day.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		Presentations (15%). You will have a few opportunities to convey your thoughts to others orally in English. It will be a reflective conversation with a teacher or a classmate. You will explain your learning progress in a lesson. You can see the notes while speaking, when necessary. Feedback will be given during the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply any and all literacy skills to understand academic and non-academic texts in and out of class. Students can compose and organize ideas logically.	Students can use experience, examples, and reading and critical thinking skills to understand materials and encounters in and out of class.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction & Orientation Order of Events	Lecture Individual & group activity	Review: - Read the syllabus - Complete the assignment	20
2 /	Sequences and Cycles I Reflective conversation/writing	Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30
3 /	Sequences and Cycles II Quiz 1	Quiz Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment	30
4 /	Ability and Capacity I Reflective conversation/writing	Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30
5 /	Ability and Capacity II Quiz 2	Quiz Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment	30
6 /	Visualizing and Explaining Data 1 Reflective conversation/writing	Lecture Individual & group activity IELTS writing	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30
7 /	Visualizing and Explaining Data 2 Quiz 3	Quiz Lecture Individual & group activity IELTS writing	Preview: - Study vocabulary Review: - Complete the assignment	30
8 /	Visualizing and Explaining Data 3 Reflective conversation/writing	Lecture Individual & group activity IELTS writing	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30
9 /	Visualizing and Explaining Data 4 Quiz 4	Quiz Lecture Individual & group activity IELTS writing	Preview: - Study vocabulary Review: - Complete the assignment	30
10 /	Visualizing and Explaining Data 5 Reflective conversation/writing	Lecture Individual & group activity IELTS writing	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Describing Situations and Objects I Quiz 5	Quiz Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment	30
12 /	Describing Situations and Objects II Reflective conversation/writing	Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment - Study for a quiz	30
13 /	Describing Situations and Objects III Quiz 6	Quiz Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment	30
14 /	Understanding Reflective Writing	Lecture Individual & group activity	Preview: - Study vocabulary Review: - Complete the assignment	30
15 /	Wrap-up and Self-Peer Evaluation	Lecture Individual & group activity	Preview: - Reflect on your learning	20

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Advanced English	1	621500	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	STEVENSON, Ian	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Discussion	Students will be able to improve their English oral and written communication skills through discussion and written responses on various topics. They will be able to enhance their critical thinking skills and practice putting their ideas into logical order in discussions, writing, and presentations.
2	Presentation	
3	Writing	
4	Communication	
5	Critical Thinking	

Course Description and Expectations for Students (10.5pt)

Students will participate in topic-based discussions in English based on information presented in class. Then, written reflections will be expected in response to the topics and discussions.
Students will learn specific ways to improve their critical thinking and communication skills.
Presentations will also be a key part of the course, so students will be required to do research and use presentation software to complete the assignment.

Students should be prepared with the necessary materials for the class, including computers, handouts, and writing tools.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to discuss topics in English fluently
Basic computer skills, especially a basic understanding of presentation software
Willingness to express opinions through discussion and writing

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g	Students will be able to make a presentation on a topic of their choice.
②	b	Students will be able to discuss and write responses to various social issues.
③	c, d	Students will be able to learn how to communicate their ideas clearly.
④	e, h	Students will be able to gain knowledge on a wide variety of subjects.
⑤	f	Students will be able to express opinions in English.
⑥	i	Students will be able to practice critical thinking skills.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	20	30	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	5	5	0	10	0	25
	Ability to think, reason and create	0	5	5	10	0	5	0	25
	Collaboration and leadership	0	0	5	5	0	5	0	15
	Announcement / Expression / Communication	0	5	5	5	0	5	0	20
	Attitude and motivation for learning	0	5	0	5	0	5	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Two in-class quizzes (20%): Week 8, speaking test (10%) Week 14, written quiz (10%)
	②		
	③		
	④	✓	
	⑤	✓	
	⑥		
Reports	①		In-class handouts based on the topics (20%)
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①	✓	Topic-based presentation (30%) Includes outline, presentation slides, script, in-class presentation, and self-evaluation
	②		
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		10 short written responses or reflection paragraphs based on the in-class topics (30%)
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Discuss 100% in English using critical thinking. Professional-level presentation.	Discuss mostly in English. Clear and logical presentation.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students are introduced to the syllabus and the general contents of the course. Students will participate in communication activities and write a short reflection paper.	lecture discussion cooperative learning writing	Review: review course information and plan for the year ahead.	50
2 /	Topic 1 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
3 /	Topic 2 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
4 /	Topic 3 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
5 /	Topic 4 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
6 /	Topic 5 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
7 /	Topic 6 Students are introduced to the topic, prepare their ideas, engage in a discussion, and write a response.	lecture discussion cooperative learning writing	Review: complete the classwork, including written responses.	50
8 /	Speaking Test Students are evaluated through a speaking test. Preparing a Presentation: Topic and Research Students learn about presentations, and then choose a topic and begin doing research.	quiz lecture project	Preview: study for quiz Review: work on research	50 100
9 /	Preparing a Presentation: Research and Outline Students will complete their research and then write a presentation outline. *Speaking Test results are returned.*	project	Review: complete research and outline	100
10 /	Preparing a Presentation: Presentation Software Students use their research and outline to prepare a slideshow presentation which includes a script in the notes.	project	Review: complete presentation	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Student Presentations Students watch, participate in, and evaluate their peers' presentations. Remaining time is used for open discussion and written responses.	presentations discussion cooperative learning writing	Preview: practice presentation Review: complete written and oral responses.	50 50
12 /	Student Presentations Students watch, participate in, and evaluate their peers' presentations. Remaining time is used for open discussion and written responses.	presentations discussion cooperative learning writing	Preview: practice presentation Review: complete written and oral responses.	50 50
13 /	Student Presentations Students watch, participate in, and evaluate their peers' presentations. Remaining time is used for open discussion and written responses.	presentations discussion cooperative learning writing	Preview: practice presentation Review: complete written and oral responses.	50 50
14 /	Quiz Students will write a quiz to demonstrate an understanding of their peers' presentations. Communication Activities Students participate in communication activities.	quiz lecture cooperative learning	Preview: study for quiz Review: complete written responses.	50 50
15 /	Evaluation Feedback Students are given oral and written feedback both overall and individually on their work. After the feedback, students participate in communication activities.	feedback communication activities	Preview: complete any remaining classwork.	50

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本語IA Japanese 1A	3	621600	前学期 1st semester	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1	筒井　昌子 TSUTSUI, Masako	白山麓C 101,201		

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	日本語	この科目では、日本語の読み書きができるようになるために、文字を習得し、語彙知識と「読む」「書く」技能を向上させる。 Improving daily communication skills in Japanese, especially reading and writing skills, Hiragana, Katakana, kanji and vocabulary will be the focus of this course.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

日本語で使用される文字（ひらがな、カタカナ、漢字、ローマ字）を学び、日本語での基礎的な読み書きの習得を目指す。
この科目は、同学期に開講される「日本語基礎」と連動しており、「日本語基礎」では文法・文型の学習と会話・聴解技能向上、「日本語ＩA」では文字（漢字）・語彙の学習と読解・作文技能向上に主眼を置く。教材も共通のものを利用するが、成績についてはそれぞれの科目の重点技能の観点で評価を行う。単語クイズや漢字クイズについては「日本語ＩA」の学習活動として実施し評価を行う。
なお話す/聞く技能については評価項目とはしていないが、日々の学習活動の中で学んだ語彙や文型を授業活動で使うことにより、日本語での会話技能を向上させることも目指す。
Students will learn the characters used in Japanese (hiragana, katakana, kanji, and romaji) and aim to acquire basic reading and writing skills in Japanese.
This course is linked to the "Basic Japanese" course offered in the same semester. The "Basic Japanese" course focuses on learning grammar and sentence patterns and improving speaking and listening skills, while the "Japanese IA" course focuses on learning characters (Kanji),vocabulary , improving reading and writing skills. While common teaching materials will be used, grades will be evaluated from the perspective of the key skills in each subject area. Vocabulary quizzes and Kanji quizzes will be implemented and evaluated as a learning activity in "Japanese IA".
Although speaking/listening skills are not included in the assessment, students will be able to use the vocabulary and sentence patterns learned in daily study activities in class activities to improve their conversational skills in Japanese.

【教科書および参考書・リザーブドブック】
教科書：「初級日本語　とびらＩ」くろしお出版　2021　ISBN 978-4-87424-870-6
「初級日本語　とびらＩ　ワークブック１－ひらがな・カタカナ、かんじ、よむ、かく」くろしお出版　2022　ISBN 978-4-87424-910-9
「初級日本語　とびらＩ　ワークブック２－たんご、ぶんぽう、きく」くろしお出版　2023　ISBN 978-4-87424-950-5
参考書：なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

特になし

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e,i	拗音、長音を含めたひらがな、カタカナが正しく読み書きできる。 Can correctly read and write hiragana and katakana, including the Japanese special sounds.
②	e,i	学習した漢字の意味がわかり、読み書きができる。 Understand the meaning of kanji learned and be able to read and write them.
③	e,i	学習した漢字や言葉をもとに、必要な情報を収集することができる。 Able to gather necessary information based on learned Kanji characters and words.
④	e.t	学習した言葉や文型を使い、自分のことや身近なことについて簡単な漢字交じりの文を書くことができる。 To be able to write simple sentences with kanji characters about oneself and one's surroundings using the learned words and sentence patterns.
⑤		
⑥		

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	80	20	0	0	0	0	100
総合力指標	知識を取り込む力	0	60	0	0	0	0	0	60
	思考・推論・創造する力	0	10	0	0	0	0	0	10
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	10	10	0	0	0	0	20
	学習に取組む姿勢・意欲	0	0	10	0	0	0	0	10

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評 価 方 法	行動目標		評 価 の 実 施 方 法 と 注 意 点
試 験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・ひらがな・カタカナに関しては、各文字の学習終了後にそれぞれ１回ずつ計２回書くクイズを実施する。（10/100） ・漢字に関しては、各課終了時に計４回クイズを実施する。（20/100） ・各課終了時に、新出語彙・文型を含むクイズを計７回行う。（30/100） ・学期の終了時の授業時間内に、授業で取り上げた読解教材の内容が理解できているかどうかのクイズを実施する。（20/100） 上記４種類のクイズでの評価割合を80%とする。 -The quiz will be given twice after the study of each letter. (10/100) -For Kanji, students will be quizzed 4 times at the end of each lesson. (20/100) -At the end of each lesson, students will be quizzed 7 times on new vocabulary and sentence patterns. (30/100) -At the end of the semester, students will be quizzed on their understanding of the reading comprehension material covered in class during class time. (20/100) The percentage of evaluation in the above four types of quizzes will be 80%.
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
レポート	①	レ	・学期内に授業で取り組んだ作文を１本選んで清書し提出してもらう。内容の豊富さと取り組み（丁寧さ）を評価する。 評価割合を成績の20%とする。 -Students will be asked to select one essay that they have worked on in class during the semester and submit it in a clean copy. The richness of the content and the effort (politeness) will be evaluated. The percentage of evaluation will be 20% of the grade.
	②	レ	
	③		
	④	レ	
	⑤		
	⑥		
成果発表 （口頭・実技）	①		
	②		
	③		
	④		
	⑤		
	⑥		
作 品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・学習した文字を正しく使って、学習した文型で文を書くことができる。 ・自分が言いたいことを、学習した文型や語彙を用いていくつかの単文で表現できる。 ・学習したレベルの文型や語彙が使われた文章を読んだり聞いたりして、内容が正しく理解できる。	・時折文字の間違いなどはあるが、学習した文型を概ね使用して文を書くことができる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながら、いくつかの単文で表現できる。 ・学習したレベルの文型や語彙が使われた文章を読んだり聞いたりして、内容がおおよそ理解できる。
-Can write sentences using the learned sentence patterns with the correct use of the learned letters. -Can express what he/she wants to say in a few simple sentences using the learned sentence patterns and vocabulary. -Can read and listen to sentences that use the learned vocabulary and sentence patterns, and understand the content correctly.	-Can write sentences using most of the sentence patterns they have learned, with occasional errors in spelling and grammar. -Able to express what they want to say in a few simple sentences with the help of native speakers. -Can read and listen to sentences that use the same sentence patterns and vocabulary learned in the course, and can roughly understand the content.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1	Class Orientation. About Japanese letters	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
2	Hiragana w/r	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
3	Hiragana w/r	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
4	Hiragana w/r Katakana w/r	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents ひらがなクイズの準備 Study for Hiragana Quiz	30
5	**Hiragana Quiz** Katakana w/r	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
6	Katakana w/r Self Introduction	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
7	Hiragana Katakana w/r	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents カタカナクイズの準備 Study for Hiragana Quiz	30
8	**Katakana Quiz** Lesson 1 Vocabulary	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
9	Lesson 1 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
10	Lesson 1 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
11	Lesson 1 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	30
12	**Vocabulary Quiz #1 L1** Lesson 2 Vocabulary	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
13	Lesson 2 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
14	Lesson 2 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
15	Lesson 2 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
16	**Vocabulary Quiz #2 L2** Japanese calligraphy Kanji Guidance	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	15
17	Lesson 3 Vocabulary	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
18	Lesson 3 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
19	Lesson 3 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
20	Lesson 3 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
21	Lesson 3 Kanji	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	30
22	**Vocabulary Quiz #3 L3** Lesson 4 Vocabulary	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents 漢字クイズの準備 Prepare for Kanji Quiz	30
23	**Kanji Quiz #1 L3** Lesson 4 Kanji	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
24	Lesson 4 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
25	Lesson 4 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
26	Lesson 4 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	15
27	**Vocabulary Quiz #4 L4** Lesson 5 Vocabulary	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents 漢字クイズの準備 Study for Kanji Quiz	30
28	**Kanji Quiz #2 L4** Lesson 5 Kanji	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
29	Lesson 5 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
30	Lesson 5 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
31	Lesson 5 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	30
32	**Vocabulary Quiz #5 L5** Typing	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return	授業内容の復習 Review the course contents	15
33	Lesson 6 Vocabulary	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 漢字クイズの準備 Study for Kanji Quiz	30
34	**Kanji Quiz #3 L5** Lesson 6 Kanji	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
35	Lesson 6 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
36	Lesson 6 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
37	Lesson 6 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 語彙クイズの準備 Study for Vocabulary Quiz	30
38	**Vocabulary Quiz #6 L6** Lesson 7 Vocabulary	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents 漢字クイズの準備 Study for Kanji Quiz	30
39	**Kanji Quiz #4 L6** Lesson 7 Kanji	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents	30
40	Lesson 7 Sentence	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	30
41	Lesson 7 Reading	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15
42	Lesson 7 Essay	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents	15

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
43	**Vocabulary Quiz #7 L7** Review for Reading & Writing	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents 漢字クイズの準備 Study for Kanji Quiz	15
44	**Kanji Quiz #4 L7** Review for Reading & Writing	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	授業内容の復習 Review the course contents テストの準備 Prepare for　Test	30
45	**Reading Test** Reflection & Self Evaluation	講義・演習 Lecture・Practice テスト実施・採点・返却 Test, Grading & Return	*** Deadline for submitting a essay**	なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing IA (Writing Strategies)	1	621700	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BAIRD, Pauline	Hakusanroku C 101.201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Writing Strategies)
Mini-workshop, exercise
You must submit all in-class exercises and final drafts at the end of each unit at class time.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts & Teacher-made materials)
Reference books: *Skills for Academic Success: Reading Choice.* By Lorrain C. Smith and Nancy Nici Mare. Adapted by Miwako Yamashina, Mitsuru Yokoyama & Yasuko Okino. National Geographic Learning. 2023.
Message Delivered: Paragraph Writing and Presentation by Leonid Yoffe et.al. Nan'un- Do. 2020

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions. Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	65	25	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	55	15	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	40%: Reading (Each quiz will be given after each reading skill) Writing (Quizzes will be given in each unit). 10%: Speed reading homework (online) 10%: Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in class the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	25%: Reading: (Complete the handouts and submit on time). The class handouts will be returned in class after a quiz. Writing: (Complete all journals and in-class assignments).
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Journal Writing (10 mins) Pre- Instruction Assessment: Grammar and Paragraph Writing.	Mini - Workshop Exercise	Read the syllabus Review classwork	20
2 /	**Unit 1: Opinion Writing** Journal Writing (10 mins - Myself: Present Tense) The Paragraph Structure	Mini - Workshop Exercise	Complete Exercise Turn in at the end of class or at Office hour.	30
3 /	Journal Writing (10 mins) (Myself: Present Past Tense) The Paragraph Structure	Mini - Workshop Workshop	Complete Exercise Turn in at the end of class or at Office hour.	30
4 /	Journal Writing (10 mins) (Myself: Future Tense) The Paragraph Structure	Workshop & Conferencing	Complete Exercise Turn in at the end of class or at Office hour.	30
5 /	**Quiz 1: Critical Thinking** **(**IELTS TASK 2 (Academic Style) Journals Due Progress check and Reflections	Review of Journals	Complete Exercise Turn in at the end of class or at Office hour.	30
6 /	**Unit 2: Topic Sentence** Journal Writing (10 mins - My New Friend (Present Tense and Present Perfect) Paragraph Analysis *Return journals to students*	Workshop	Complete Exercise Turn in at the end of class or at Office hour.	30
7 /	Journal Writing (10 mins - My New Friend (Past Tense and Past Perfect) Brainstorming and Drafting	Workshop Exercise	Complete unfinished work. Turn in at Learning Session.	30
8 /	Journal Writing (10 mins - My New Friend (Past perfect - negative) Title, Topic sentences, and Outline	Workshop Exercise	Complete Exercise Turn in at the end of class or at Office hour.	30
9 /	Journal Writing (10 mins) (10 mins - My New Friend (past perfect - negative) Title, Topic sentences, and Outline	Mini-Workshop Exercise	Complete unfinished work. Turn in at Learning Session.	30
10 /	**Quiz 2: Critical Thinking (**IELTS TASK 2 (Academic Style) Journals Due Progress check and Reflections	Review of Journals	Complete unfinished work. Turn in at Learning Session.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	**Unit 2: Supporting Sentences** Journal Writing (10 mins) Sentence Control: And, In addition, But, However, So, Therefore Paragraph Analysis *Return journals to students*	Mini-Workshop Exercises	Complete Exercise Turn in at the end of class or at Office hour.	30
12 /	Journal Writing (10 mins) Diction: Sentence Control: And, In addition, But, However, So, Therefore. From Topic Sentences to Supporting Sentences	Workshop Exercise	Complete Exercise Turn in at the end of class or at Office hour.	30
13 /	Journal Writing (10 mins) Sentence Control: And, In addition, But, However, So, Therefore From Topic Sentences to Supporting Sentences	Mini-Workshop Exercise	Complete Exercise Turn in at the end of class or at Office hour.	30
14 /	**Quiz 3: Critical Thinking (**IELTS TASK 2 (Academic Style) & Post-Instruction Assessment (Grammar) Journals Due	Review of Journals	Complete Exercise Turn in at the end of class or at Office hour.	30
15 /	Catch-up, Reflection, and Course Evaluation *Return journals to students*	Workshop Exercise	Complete activities	30
16 /	Final Exam			30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading & Writing I A (Advanced)	1	621700	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	REYNOLDS, Stephanie	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 4 sections; Reading Strategy, Vocabulary, Extensive Reading, and Writing.

(Reading Strategy) In-class activities and exercises to practice academic reading skills.

(Vocabulary) Personalized study sets, practice, and regular quizzes to measure growth of vocabulary understanding.

(Extensive Reading) Sustained silent-reading of 1 or more self-selected books at an independent reading level and reflection/discussion.

(Writing) In-class activities and exercises to practice grammar and organization of 4 types of paragraphs.

You need to keep all your assignments and handouts in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books: Reading Explorer Level 3 9780357124710 and Reading Explorer Level 4 9780357124734

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions. Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f, g, i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f, g, i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description writing styles.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading Strategy) In-class assignments will be given for each unit covered. 15% : (Vocabulary) 5 quizzes will be given in classes 3, 6, 9, 12, 15. 15% : (Extensive Reading) In-class extensive reading assignments based on 1 or more self-selected books. Feedback and graded assignments will be returned in class and/or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	6%: 6 Grammar exercise activities, each will be graded on completion of the tasks and revision. 24%: Students will write 4 different genres of paragraphs, which will be graded according to the following criteria: Writing Process, Task Achievement, Cohesion, Coherence Students will write 150-200 words on each assignment in class or for homework after each lesson. Students will submit assignments online, before the next class period. Verbal and written feedback will be given in writing conferences with the teacher during the following class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Reading: Unit 1A Reading skills and vocabulary exercises. Writing: Students will complete exercises to address sentence structure and fragments.	Exercises. Free writing on an assigned or self -selected topic.	Read the syllabus. Complete assignment and turn in online before the next class.	30
2 /	Reading: Unit 1B Reading skills and vocabulary exercises. Writing: Students will consider the features of an effective topic sentence.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
3 /	Reading: Unit 1 Review & Quiz 1, Extensive Reading Introduction. Writing: Students will write topic sentences.	Exercises.	Revise and complete unfinished assignments. Turn in online before the next class.	30
4 /	Reading: Unit 2A Reading skills and vocabulary exercises. Writing: Students will consider the features of effective supporting sentences.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
5 /	Reading: Unit 2B Reading skills and vocabulary exercises. Writing: Students will write supporting sentences.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
6 /	Reading: Unit 2 Review and Quiz 2. Writing: Students will consider the features of concluding sentences, and practice different techniques for planning, brainstorming, editing, and revising.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
7 /	Reading: Unit 3A Reading skills and vocabulary exercises. Writing Students will consider the features and structures of effective opinion paragraphs, then write their own.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
8 /	Reading: Unit 3B Reading skills and vocabulary exercises. Writing: Students will revise opinion paragraphs.	Exercises. Conferencing about opinion paragraph.	Revise and complete unfinished assignments. Turn in online before the next class.	30
9 /	Reading: Unit 3 Review and Quiz 3. Writing: Students will consider the features and structures of effective process paragraphs, then write their own.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
10 /	Reading: Unit 4A Reading skills and vocabulary exercises Writing: Students will revise process paragraphs.	Exercises. Conferencing about Process paragraph.	Revise and complete unfinished assignments. Turn in online before the next class.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reading: Unit 4B Reading skills and vocabulary exercises. Writing: Students will consider the features and structures of effective problem-solution paragraphs, then write their own.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
12 /	Reading: Unit 4 Review and Quiz 4. Writing: Students will revise problem-solution paragraphs.	Exercises. Conferencing about Problem-solution paragraph.	Revise and complete unfinished assignments. Turn in online before the next class.	30
13 /	Reading: Unit 5A Reading skills and vocabulary exercises. Writing: Students will consider the features and structures of effective narrative paragraphs, then write their own.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
14 /	Reading: Unit 5B Reading skills and vocabulary exercises. Narrative Paragraph: Students revise narrative paragraphs.	Exercises. Conferencing about Narrative paragraph.	Revise and complete unfinished assignments. Turn in online before the next class.	30
15 /	Reading: Unit 5 Review and Quiz 5. Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester.	Review and evaluate your progress and understanding.		30
16 /	Final Exam	Review and evaluate your progress and understanding.	Review the final exam.	
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing IA (Reading Strategy)	1	621700	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TSUDA, Akihiro	Hakusanroku C: 101. 201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Reading Strategy)
Lecture, exercise
You need to submit all the handouts after a quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: None (Handouts)
Reference books: キクタン Basic 4000,（アルク社）9784757433472 「１０分間英語速読トレーニング Level 1」（桐原書店） 9784342156052
Reserved books: *Basic Reading Power 1* ISBN: 9780138143893/ *Reading Power 2* ISBN:9780138143886

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions. Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	40% : (Reading) Each quiz will be given after each reading skill. (Writing) Complete a final draft of a writing assignment at the end of each unit and turn it in at class time or online. 10% : Speed reading homework (online) 10% : Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	(Reading) Complete the handouts and submit in time. The class handouts will be returned in class after a quiz. (Writing) Complete and submit all writing exercises, re-writes, first drafts and final drafts in your journals at the end of each unit.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction	Lecture Exercise	Read the syllabus Study vocabulary	20
2 /	Scanning	Lecture Exercise	Speed Reading L1-2 Review reading skills	30
3 /	Scanning Quiz	Lecture Exercise	Speed Reading L3-4 Review reading skills	30
4 /	Preview / Predict	Lecture Exercise	Speed Reading L5-6 Review reading skills	30
5 /	Preview / Predict Quiz	Lecture Exercise	Speed Reading L7-8 Review reading skills	30
6 /	Learning about Context	Lecture Exercise	Speed Reading L9-10 Review reading skills	30
7 /	Learning about Context Quiz	Lecture Exercise	Speed Reading L11-12 Review reading skills	30
8 /	Focusing on the Topic	Lecture Exercise	Speed Reading L13-14 Review reading skills	30
9 /	Focusing on the Topic Quiz	Lecture Exercise	Speed Reading L15-16 Review reading skills	30
10 /	Understanding Paragraphs	Lecture Exercise	Speed Reading L17-18 Review reading skills	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Understanding Paragraphs Quiz	Lecture Exercise	Speed Reading L19-20 Review reading skills	30
12 /	Main idea	Lecture Exercise	Speed Reading L21-22 Review reading skills	30
13 /	Main idea Quiz	Lecture Exercise	Speed Reading L23-24 Review reading skills	30
14 /	Thinking in English	Lecture Exercise	Review reading skills	30
15 /	Thinking in English	Lecture Exercise	Review reading skills	30
16 /	Final Exam	Review and evaluate your progress and understanding	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking I A (b)	2	621800	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BASQUILL, Edward	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies and describe people, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able to exercise literacy skills, including speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 7 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2*

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Beginner English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to recognize introductions from new acquaintances and talk about emotions.
⑤	g, f, i	Students will be able to recognize other's opinions about hobbies, sports, and travel.
⑥	d, f	Students will be able to recognize speech about food, photos, work, shopping, and the human body.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be based on the IELTS exam and will be given 4 times spread out over the semester. Quizzes will be graded and returned within two weeks.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Classwork tasks from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will complete an oral exercise (recorded) throughout the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	IELTS Milestone quiz 1	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 2: Textbook Units 3 and 4 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 2: Textbook Units 3 and 4 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Units 3 and 4 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 3 and 4 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 3 and 4 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	Content Part 2: Textbook Units 3 and 4 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	IELTS Milestone quiz 2	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
16 /	Content Part 3: Textbook Units 5 and 6 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
17 /	Content Part 3: Textbook Units 5 and 6 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
18 /	Content Part 3: Textbook Units 5 and 6 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
19 /	Content Part 3: Textbook Units 5 and 6 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
20 /	Content Part 3: Textbook Units 5 and 6 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Content Part 3: Textbook Units 5 and 6 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
22 /	IELTS Milestone quiz 3	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
23 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
24 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
25 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
26 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
27 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
28 /	Content Part 4: Textbook Units 7 and Semester Review Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
29 /	IELTS Milestone quiz 4:	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
30 /	Wrap Up and Review Focus: Reflection on semester	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking I A (Advanced)	2	621800	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAYLOR, James	Hakusanroku C.: 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies; describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for the students to be able to exercise literacy skills including, speaking, listening, and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 7 units of the textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2 (Intermediate): National Geographic Learning by (Eds). Lewis Lansford, Daniel Barber, Amanda Jeffers (National Geographic Learning) 2018.* ISBN: 978-1-337-27713-6.

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Upper-intermediate/advanced English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to recognise introductions from new acquaintances and talk about emotions.
⑤	g, f, i	Students will be able to recognise others' opinions about hobbies, sports, and travel.
⑥	d, f	Students will be able to recognise speech about food, photos, work, shopping, and the human body.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be Proficiency Quizzes in lessons 8, 15, 22, and 29. Quizzes will use IELTS-style questions. Quizzes are designed to show the progress of students' English ability during the semester. Each quiz will have a minimum score required to pass. Failure to achieve the minimum target score will require the student to take a retest. Quizzes will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will do grammar/vocabulary activities in each unit, which will be graded and returned with feedback by the following lesson in class. Each unit will contain a listening activity. This will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	There will be at least one speaking activity in each unit. Speaking activities will be graded and returned with feedback by the following lesson in class. Students will complete a spoken reflection exercise at the end of each unit. Reflections will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will work efficiently to complete tasks on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will work somewhat efficiently to complete tasks on time and to a reasonable standard. Students will respond to most feedback appropriately and occasionally seek help when necessary.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Unit 1: In Touch with Your Feelings Grammar/Vocabulary	Syllabus; stations; textbook; worksheets; online activities; individual, pair, and group activities.	Read the syllabus.	30
2 /	Unit 1: In Touch with Your Feelings Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
3 /	Unit 1: In Touch with Your Feelings Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
4 /	Unit 1: In Touch with Your Feelings Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
5 /	Unit 2: Enjoy the Ride Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
6 /	Unit 2: Enjoy the Ride Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
7 /	Unit 2: Enjoy the Ride Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
8 /	Progress Quiz 1	Test questions.	Review the test questions.	30
9 /	Unit 2: Enjoy the Ride Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
10 /	Unit 3: Active Lives Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Unit 3: Active Lives Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
12 /	Unit 3: Active Lives Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
13 /	Unit 3: Active Lives Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
14 /	Unit 4: Food Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
15 /	Progress Quiz 2	Test questions.	Review the test questions.	30
16 /	Unit 4: Food Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
17 /	Unit 4: Food Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
18 /	Unit 4: Food Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
19 /	Unit 5: Work Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
20 /	Unit 5: Work Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Unit 5: Work Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
22 /	Progress Quiz 3	Test questions.	Review the test questions.	30
23 /	Unit 6: Superhuman Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
24 /	Unit 6: Superhuman Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
25 /	Unit 6: Superhuman Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
26 /	Unit 7: Shopping Around Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
27 /	Unit 7: Shopping Around Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit by the announced deadline.	30
28 /	Unit 7: Shopping Around Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
29 /	Progress Quiz 4	Test questions.	Review the test questions.	30
30 /	Review & Catch-up	End of course questionnaire; self-assessment activities.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking IA (a)	2	621800	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	STEVENSON, Ian	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies and describe people, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able to exercise literacy skills, including speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 7 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2 (Intermediate): National Geographic Learning by (Eds). Daniel Barber, Lewis Lansford, Amanda Jeffries (National Geographic Learning) 2018.*

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Beginner English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to recognize introductions from new acquaintances and talk about emotions.
⑤	g, f, i	Students will be able to recognize other's opinions about hobbies, sports, and travel.
⑥	d, f	Students will be able to recognize speech about food, photos, work, shopping, and the human body.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	∠	Quizzes will be based on the IELTS exam and will be given 4 times spread out over the semester. Quizzes will be graded and returned within two weeks.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Reports	①	∠	Classwork tasks from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Presentations	①	∠	Students will complete an oral exercise (recorded) throughout the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	IELTS Milestone quiz 1: IELTS Quiz	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 2: Textbook Units 3 and 4 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 2: Textbook Units 3 and 4 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Units 3 and 4 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 3 and 4 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 3 and 4 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	Content Part 2: Textbook Units 3 and 4 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	IELTS Milestone quiz 2: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
16 /	Content Part 3: Textbook Units 5 and 6 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
17 /	Content Part 3: Textbook Units 5 and 6 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
18 /	Content Part 3: Textbook Units 5 and 6 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
19 /	Content Part 3: Textbook Units 5 and 6 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
20 /	Content Part 3: Textbook Units 5 and 6 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Content Part 3: Textbook Units 5 and 6 Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
22 /	IELTS Milestone quiz 3: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
23 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
24 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
25 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
26 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
27 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
28 /	Content Part 4: Textbook Units 10 and Semester Review Focus: Presentation, Make-up and Quiz Preparation	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
29 /	IELTS Milestone quiz 4: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
30 /	Wrap Up and Review Focus: Reflection on semester	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本語ＩB Japanese IB	2	621900	後学期 2nd semester	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	筒井　昌子 TSUTSUI, Masako	白山麓C 101,201		

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	日本語	この科目では、先学期開講した「日本語基礎A」「日本語ＩA」から継続して、日常の日本語でのコミュニケーション能力に関して、四技能を総合的に向上させることをめざす。 In this course, continuing from "Basic Japanese A" and "Japanese I A" offered in the previous semester, we aim to comprehensively improve the four skills of daily communication in Japanese.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

先学期に引き続き「日本語基礎B」で会話能力を「日本語ＩB」で読み書きの能力の向上を目指す。
語彙クイズや漢字クイズについては「日本語ＩB」の学習活動として実施評価を行う。

Continuing from last semester, students mastered conversational skills in "Basic Japanese B" and reading and writing skills in "Japanese IB". Vocabulary quizzes and Kanji quizzes will be conducted as a learning activity in "Japanese IB" and will be evaluated there as well.

【教科書および参考書・リザーブドブック】
教科書：
学習者①：「日本語総まとめN3 文法」アスク出版 9784866394909
「日本語総まとめN2 文法」アスク出版 9784866394886
「留学生のための漢字の教科書 中級700」国書刊行会 978-4-336-06136-2
「読解厳選テーマ25 初中級」凡人社 978-4893589439
「新版 聞いて覚える話し方 日本語生中継 初中級１」978-4874249833
学習者②：「いろどり　生活の日本語　初級１」オンラインテキスト
「漢字たまご　初中級」9784867460238
参考書：なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

学習者①：日本語初中級から中級程度以上の語彙・文法・文型知識および実際に使える技能
学習者②：日本語初級中盤から後半程度以上の語彙・文法・文型知識および実際に使える技能

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e,i	テキストで学んだ文型や語彙が用いられた日本語表現を聞いたり読んだりして、意味を理解できる。 Can listen to and read Japanese expressions in which sentence patterns and vocabulary learned in the text are used and understand their meanings.
②	e,i	テキストで学んだ文型や語彙を用いながら話したり書いたりして、自分の意志を伝えることができる。 Can communicate his/her intentions by speaking and writing while using the sentence patterns and vocabulary learned in the text.
③	e,i	動詞や形容詞の様々な活用形を使い分けることができる。 Can use a variety of conjugated forms of verbs and adjectives.
④	e,i	学習した漢字や言葉をもとに必要な情報を収集することができる。 Able to gather necessary information based on learned Kanji characters and words.
⑤	e,i	学習した漢字を使って自己表現ができる。 Able to express themselves using the kanji they have learned.
⑥		

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	70	15	15	0	0	0	100
総合力指標	知識を取り込む力	0	70	0	0	0	0	0	60
	思考・推論・創造する力	0	0	0	0	0	0	0	0
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	10	10	0	0	0	20
	学習に取組む姿勢・意欲	0	0	5	5	0	0	0	10

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・漢字クイズを実施する。評価割合を全体の20%とする。 ・新出語彙・文型のクイズを行う。評価割合を全体の50%とする。 ※クイズの回数は授業初日に学習者とともに決定する。 -A Kanji quiz will be given. The percentage of evaluation will be 20% of the total. -A quiz on new vocabulary and sentence patterns will be given. The percentage of evaluation will be 50% of the total. *The number of quizzes will be decided after consultation with students on the first day of class.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
レポート	①	レ	・与えられた課題でレポートを作成する。内容やでき映えを10%、取り組みへの姿勢・意欲（課題作成時の積極性、提出期限など）を5%で評価する。 -Students will write a report on the given assignment. The content and the quality of the report will be evaluated at 10%, and the attitude and motivation toward the work (positive attitude when writing the assignment, submission deadline, etc.) will be evaluated at 5%.
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥		
成果発表 （口頭・実技）	①	レ	・与えられた課題でプレゼンテーションを行う。内容やでき映えを10%、取り組みへの姿勢・意欲（課題作成時の積極性、提出期限など）を5%で評価する。 -Presentation on the given assignment. The content and quality of the ppt doc. will be evaluated at 10%, and the attitude and motivation toward the work (positive attitude when writing the assignment, submission deadline, etc.) will be evaluated at 5%.
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・助詞を正しく使って、学習した文型で文を産出できる。 ・自分が言いたいことを、学習した文型や語彙を用いていくつかの単文で表現できる。 ・まとまった長さの文章をひとりで読んで、大意を正しく理解できる。 -Can produce sentences using the learned sentence patterns with the correct use of particles. -Explain what you want to say in a few sentences using the learned sentence patterns and vocabulary. -Read sentences of a certain length on one's own and understand the main idea correctly.	・時折、助詞の間違いなどはあるが、意味が通じる程度の正確さで学習した文型を産出できる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながらいくつかの単文で表現できる。 ・教師に助言をもらいながらまとまった長さの文章を読んで、大意をおおよそ理解できる。 -Can produce the learned sentence patterns with enough accuracy to make sense, although there are occasional errors with particles. -Able to express what they want to say in a few single sentences with the help of native speakers in terms of sentence structure and vocabulary. -With the help of a teacher, be able to read sentences of a coherent length and understand the main idea.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	Class Orientation Review on the previous studies Q&A Conversation Explanation of Presentation Planning for the class schedule	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画書の仕上げと確認 Finalizing and confirming the study plan	15
2 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
3 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
4 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan 発表の準備 Prepare for the presentation (not yet fixed)	30
5 ／	Textbook (Follow own study plan) Presentation (not yet fixed)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
6 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
7 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
8 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
9 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
10 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
11 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
12 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
13 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
14 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
15 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
16 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
17 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
18 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
19 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
20 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
21 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
22 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
23 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
24 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
25 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
26 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
27 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
28 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
29 ／	Textbook (Follow own study plan) Finalize the report (not fixed yet) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents レポートの完成 Finalize the report	15
30 ／	Reflection & Self Evaluation	講義・演習 Lecture・Practice	* deadline for the Report (not fixed yet)	なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing IB (Writing Strategies)	1	622000	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BAIRD, Pauline	Hakusanroku C 101.201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Writing Strategies)
Mini-workshop, exercise
You must submit all in-class exercises and final drafts at the end of each unit at class time.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts & Teacher-made materials)
Reference books: *Skills for Academic Success: Reading Choice.* By Lorrain C. Smith and Nancy Nici Mare. Adapted by Miwako Yamashina, Mitsuru Yokoyama & Yasuko Okino. National Geographic Learning. 2023.
Message Delivered: Paragraph Writing and Presentation by Leonid Yoffe et.al. Nan'un- Do. 2020

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions. Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	65	25	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	55	15	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	40%: Reading (Each quiz will be given after each reading skill) Writing (Quizzes will be given in each unit). 10%: Speed reading homework (online) 15%: Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in class the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	25%: Reading: (Complete the handouts and submit on time). The class handouts will be returned in class after a quiz. Writing: (Complete all in-class journals and in-class assignments).
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Journal Writing (10 mins) Pre- Instruction Assessment: Grammar and Paragraph Writing.	Mini - Workshop Exercise	Read the syllabus Review classwork	20
2 /	**Unit 1: Writing Invention** In-class Journal Writing (10 mins) Review Paragraph Structure Grammar for Writing (Present Perfect)	Mini - Workshop Exercise	Complete Exercise Turn it in at the end of class or at Office hour.	30
3 /	In-class Journal Writing (10 mins) Gathering information (Invention) Language: History, places used/number of speakers, Regional Dialects/variations	Mini - Workshop Workshop	Complete Exercise Turn it in at the end of class or at Office hour.	30
4 /	In-class Journal Writing (10 mins) Paragraph Analysis Vocabulary and Expressions	Workshop & Conferencing	Complete Exercise Turn it in at the end of class or at Office hour.	30
5 /	**Quiz 1: Critical Thinking (**IELTS TASK 2 (Academic Style) Journals Due Progress check and Reflections	Review of Journals	Complete Exercise Turn it in at the end of class or at Office hour.	30
6 /	**Unit 2: Concluding Sentence** In-class Journal Writing (10 mins) Exercises *Return journals to students*	Workshop	Complete Exercise Turn it in at the end of class or at Office hour.	30
7 /	In-class Journal Writing (10 mins) Exercises Grammar for Writing (Present Perfect)	Workshop Exercise	Complete unfinished work. Turn in at Learning Session.	30
8 /	In-class Journal Writing (10 mins) Vocabulary exercises and outlining	Workshop Exercise	Complete Exercise Turn it in at the end of class or at Office hour.	30
9 /	In-class Journal Writing (10 mins) Write a paragraph from an outline (100-150 words)	Mini-Workshop Exercise	Complete unfinished work. Turn in at Learning Session.	30
10 /	**Quiz 2: Critical Thinking (**IELTS TASK 2 (Academic Style) In - class Journals Catch up Progress check and Reflections	Review of Journals	Complete unfinished work. Turn in at Learning Session.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	**Unit 2: Listing** In - class Journal Writing (10 mins) Warm-up Paragraph Analysis Vocabulary and Expressions & Exercises *Return journals to students*	Mini-Workshop Exercises	Complete Exercise Turn it in at the end of class or at Office hour.	30
12 /	In - class Journal Writing (10 mins) Paragraph Analysis Listing reasons and support Grammar for Writing: (*Ordinals, Present Progressive*)	Workshop Exercise	Complete Exercise Turn it in at the end of class or at Office hour.	30
13 /	In - class Journal Writing (10 mins) Ordinals Grammar for Writing: (*Ordinals, Present Progressive*) Exercises	Mini-Workshop Exercise	Complete Exercise Turn it in at the end of class or at Office hour.	30
14 /	**Quiz 3: Critical Thinking (**IELTS TASK 2 (Academic Style) & Post-Instruction: Grammar and Paragraph Writing. In - class Journal Catch up	Review of Journals	Complete Exercise Turn it in at the end of class or at Office hour.	30
15 /	Catch-up, Reflection, and Course Evaluation *Return journals to students*	Workshop Exercise	Complete activities	30
16 /	Final Exam			30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing I B (Advanced)	1	622000	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	REYNOLDS, Stephanie	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 4 sections; Reading Strategy, Vocabulary, Extensive Reading, and Writing.

(Reading Strategy) In-class activities and exercises to practice academic reading skills.

(Vocabulary) Personalized study sets, practice, and regular quizzes to measure growth of vocabulary understanding.

(Extensive Reading) Sustained silent-reading of 1 or more self-selected books at an independent reading level and reflection/discussion.

(Writing) In-class activities and exercises to practice grammar and organization of 2 genres of essays.

You need to keep all your assignments and handouts in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books: Reading Explorer Level 3 9780357124710 and Reading Explorer Level 4 9780357124734

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions. Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description writing styles.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading Strategy) In-class assignments will be given for each unit covered. 15% : (Vocabulary) 6 quizzes will be given in classes 2,4,7,10,13,15. 15% : (Extensive Reading) In-class extensive reading assignments based on 1 or more self-selected books. Feedback and graded assignments will be returned in class and/or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	6% 6 Grammar exercise activities, each will be graded on completion of the tasks and revision. 24% Students will write 2 different genres of essays, which will be graded according to the following criteria: Writing Process, Task Achievement, Cohesion, Coherence. Students will write 750-1000 words on each assignment in class or for homework after each lesson. Students will submit assignments online, before the next class period. Verbal and written feedback will be given in writing conferences with the teacher during the following class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
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Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Reading: Unit 6A Reading skills and vocabulary exercises. Writing: Students will review the features of paragraphs.	Exercises. Free writing on an assigned or self -selected topic.	Read the syllabus Complete assignment and turn in online before the next class.	30
2 /	Reading: Unit 6B Reading skills and vocabulary exercises. **Quiz 1** Writing: Students will consider the features of an effective opinion essay. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
3 /	Reading: Unit 6 Review & Extensive Reading Introduction. Writing: Students will learn about the features of effective thesis statements. *Return graded assignment.*	Exercises.	Revise and complete unfinished assignments. Turn in online before the next class.	30
4 /	Reading: Unit 7A Reading skills and vocabulary exercises. Writing: Students will write thesis statements. **Quiz 2** *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
5 /	Reading: Unit 7B Reading skills and vocabulary exercises. Writing: Students will brainstorm their own opinion essay ideas and write an outline. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
6 /	Reading: Unit 7 Review. Writing: Students will write an introduction paragraph. *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
7 /	Reading: Unit 8A Reading skills and vocabulary exercises. Writing Students will write three body paragraphs. **Quiz 3** *Return graded assignment on manaba*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
8 /	Reading: Unit 8B Reading skills and vocabulary exercises. Writing: Students will write a conclusion paragraph. *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
9 /	Reading: Unit 8 Review. Writing: Students will review, discuss, and revise their opinion essay. *Return graded assignment.*	Exercises. Discuss and revise essay	Revise and complete unfinished assignments. Turn in online before the next class.	30
10 /	Reading: Unit 9A Reading skills and vocabulary exercises. Writing: Students will learn about the features and structure of a comparison essay. **Quiz 4** *Return graded assignment.*	Exercises Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reading: Unit 9B Reading skills and vocabulary exercises. Writing: Students will brainstorm their own essay topics and write an outline. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
12 /	Reading: Unit 9 Review. Writing: Students will write three body paragraphs. *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
13 /	Reading: Unit 10A Reading skills and vocabulary exercises. Writing: Students will write introduction and conclusion paragraphs. **Quiz 5** *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
14 /	Reading: Unit 10B Reading skills and vocabulary exercises. Writing: Students will review, discuss, and revise their comparison essay. *Return graded assignment.*	Exercises. Discuss and revise essay.	Revise and complete unfinished assignments. Turn in online before the next class.	30
15 /	Reading: Unit 10 Review. Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester. **Quiz 6** *Return graded assignment.*	Review and evaluate your progress and understanding.		30
16 /	Final Exam	Review and evaluate your progress and understanding.	Review the final exam.	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing I B (Reading Strategy)	1	622000	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TSUDA, Akihiro	Hakusanroku C: 101. 201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	In the reading class, students will be able to form a basic core of reading skills, learn to apply these skills in an extensive reading environment, and improve vocabulary, comprehension, and speed. In the writing class, students will be able to exercise literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Reading Strategy)
Lecture, exercise
You need to submit all the handouts after a quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: キクタン Basic 4000,（アルク社）9784757433472 「１０分間英語速読トレーニング Level 1」（桐原書店） 9784342156250
Reserved books: *Basic Reading Power 1* ISBN: 9780138143893/ *Reading Power 2* ISBN: 9780138143886

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	40% : (Reading) Each quiz will be given after each reading skill. (Writing) Complete a final draft of a writing assignment at the end of each unit and turn it in at class time or online. 10% : Speed reading homework (online) 10% : Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in class in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	(Reading) Complete the handouts and submit in time. The class handouts will be returned in class after a quiz. (Writing) Complete and submit all writing exercises, re-writes, first drafts and final drafts in your journals at the end of each unit.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction	Lecture Exercise	Read the syllabus Study vocabulary	20
2 /	Read Fast	Lecture Exercise	Speed Reading L1-2 Review reading skills	30
3 /	Read Fast Quiz	Lecture Exercise	Speed Reading L3-4 Review reading skills	30
4 /	Identifying the Pattern	Lecture Exercise	Speed Reading L5-6 Review reading skills	30
5 /	Identifying the Pattern	Lecture Exercise	Speed Reading L7-8 Review reading skills	30
6 /	Identifying the Pattern	Lecture Exercise	Speed Reading L9-10 Review reading skills	30
7 /	Identifying the Pattern Quiz	Lecture Exercise	Speed Reading L11-12 Review reading skills	30
8 /	Guessing Meaning from Context	Lecture Exercise	Speed Reading L13-14 Review reading skills	30
9 /	Guessing Meaning from Context Quiz	Lecture Exercise	Speed Reading L15-16 Review reading skills	30
10 /	Making Inference	Lecture Exercise	Speed Reading L17-18 Review reading skills	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Making Inference	Lecture Exercise	Speed Reading L19-20 Review reading skills	30
12 /	Making Inference Quiz	Lecture Exercise	Speed Reading L21-22 Review reading skills	30
13 /	Summarizing	Lecture Exercise	Speed Reading L23-24 Review reading skills	30
14 /	Summarizing	Lecture Exercise	Review reading skills	30
15 /	Summarizing Quiz	Lecture Exercise	Review reading skills	30
16 /	Final Exam	Review and evaluate your progress and understanding	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking I B (Intermediate)	1	622100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAYLOR, James	Hakusanroku C. 101-201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about communication, different types of entertainment, and time using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for the students to be able to exercise literacy skills including, speaking, listening, and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the last 3 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2 (Intermediate): National Geographic Learning by (Eds). Lewis Lansford, Daniel Barber, Amanda Jeffers (National Geographic Learning) 2018.* ISBN: 978-1-337-27713-6.

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Lower-intermediate/intermediate English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to recognize introductions from new acquaintances and talk about emotions.
⑤	g, f, i	Students will be able to recognize others' opinions about hobbies, sports, and travel.
⑥	d, f	Students will be able to recognize speech about food, photos, work, shopping, and the human body.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be Proficiency Quizzes in lessons 7 and 14. Quizzes will use IELTS-style questions. Quizzes are designed to show the progress of students' English ability during the semester. Each quiz will have a minimum score required to pass. Failure to achieve the minimum target score will require the student to take a retest. Quizzes will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will do grammar/vocabulary activities in each unit, which will be graded and returned with feedback by the following lesson in class. Each unit will contain a listening activity. This will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	There will be at least one speaking activity in each unit. Speaking activities will be graded and returned with feedback by the following lesson in class. Students will complete a spoken reflection exercise at the end of each unit. Reflections will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will work efficiently to complete tasks on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will work somewhat efficiently to complete tasks on time and to a reasonable standard. Students will respond to most feedback appropriately and occasionally seek help when necessary.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Unit 8: Effective Communication Grammar/Vocabulary	Syllabus; stations; textbook; worksheets; online activities; individual, pair, and group activities.	Review the syllabus.	30
2 /	Unit 8: Effective Communication Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
3 /	Unit 8: Effective Communication Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
4 /	Unit 8: Effective Communication Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
5 /	Unit 9: Unexpected Entertainment Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
6 /	Unit 9: Unexpected Entertainment Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
7 /	Proficiency Quiz 1	Test questions.	Review the test questions.	30
8 /	Unit 9: Unexpected Entertainment Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
9 /	Unit 9: Unexpected Entertainment Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
10 /	Unit 10: Time Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Unit 10: Time Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
12 /	Unit 10: Time Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
13 /	Unit 10: Time Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
14 /	Progress Quiz 2	Test questions.	Review the test questions.	30
15 /	Review & Catch-up	End of course questionnaire; self-assessment activities.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking IB (Advanced)	1	622100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	STEVENSON, Ian	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike, their hobbies and to describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able exercise literacy skills including, speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the last 3 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2 (Intermediate): National Geographic Learning by (Eds). Daniel Barber, Lewis Lansford, Amanda Jeffries (National Geographic Learning) 2018.*

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Beginner English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to set goals, make agree and disagree statements, and ask questions.
⑤	g, f, i	Students will be able to discuss past events and ask for, and make recommendations.
⑥	d, f	Students will be able to discuss time, explain causes, and give reasons.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be based on the IELTS exam and will be given 2 times spread out over the semester. Quizzes will be graded and returned within two weeks.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Classwork tasks from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will complete an oral exercise (recorded) through-out the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 7 and 8 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 7 and 8 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 7 and 8 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 7 and 8 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 7 and 8 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 7 and 8 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	IELTS Milestone quiz 1: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	IELTS Milestone quiz 2: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	Wrap Up and Review Focus: Reflection on semester	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	歴史文化IA（日本語）	1	623300	前学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	上田清史	白山麓 101.201		月曜日・木曜日 16：30－17：30

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	近代化	近現代の歴史の変化に関わる諸事象について、世界とその中の日本を広く相互的な視野から捉え、現代的な諸問題の形成にかかわる近現代の歴史を理解するとともに、諸資料から歴史に関する様々な情報を適切かつ効果的に調べまとめる技能を身に付けるようにする。
2	産業革命	
3	国民国家	
4	帝国主義	
5	大衆化	

授業の概要および学習上の助言

歴史を学ぶための「問い」の設定や歴史叙述における資料の大切さを学ぶ。世界史と日本史への理解を同時に深めてゆく。先ず 近代化へのいくつかの「問い」をふまえつつ前近代から近代への移行過程を理解し、産業革命、国民国家の形成、帝国主義などが 世界と日本に与えた影響を考察してゆく。さらに第一次世界大戦前後の大衆社会の形成について理解を深めてゆく。

授業内容について理解が不十分と感じるところがあれば質問すること。講義のメモを取り各自でノートを補完すること。

【教科書および参考書・リザーブドブック】
教科書：「私たちの歴史総合」明和社（令和４年）ISBN 9784905410584
参考書：ハンドアウト
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	c,e	歴史を学ぶための「問い」の設定や、歴史叙述と資料の重要性について説明できる。
②	c,e	前近代からの「流れ」を通して近代化の歴史的意義を説明できる。
③	c ,e	産業革命が社会に与えた影響を説明できる。
④	c,e	国民国家の形成が与えた影響を説明できる。
⑤	c,e	帝国主義と世界の植民地化が与えた影響を説明できる。
⑥	c,e	第一次世界大戦と大衆化について説明できる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		20	20	20	20	0	20	0	100
総合力指標	知識を取り込む力	8	8	5	5	0	5	0	31
	思考・推論・創造する力	4	4	8	8	0	5	0	29
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	8	8	7	7	0	5	0	35
	学習に取組む姿勢・意欲	0	0	0	0	0	5	0	5

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①	✔	定期試験。論述式問題の答案を四つの基準から評価する。①「歴史の流れ」に対する理解度。②解答に内容における史実の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
クイズ 小テスト	①	✔	中間テスト。論述式問題の解答を四つの基準から評価する。①「歴史の流れ」に対する理解度。②解答の内容における史実の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。翌週の授業までに採点され返却される。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
レポート	①	✔	５つの課題：効果的な「考え方」や「書き方」などを指導する。課題は授業で配布され次の授業の始まりに提出する。翌週の授業までに採点され返却される。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①		１回の発表：教員と相談した上で前学期に学んでいる歴史の内容からテーマを決定する。個人発表の次の点を評価する：内容、スタイル（方法）、パワーポイントなどの補助資料、資料（史料）の提示など。翌週の授業までに発表の評価を受ける。（20%）
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	✔	ポートフォリオにはリフレクションペーパー・配布資料（メモを取ること）・５つの課題・中間テスト・発表の補助資料（１点）や関係のある場合はその他を添えること。これは学期末（最後の授業）に提出する。（20%）
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
歴史を学ぶための「問い」の設定や、歴史叙述と資料の重要性について説明できる。 前近代からの「流れ」を通して近代化の歴史的意義を説明できる。 産業革命が社会に与えた影響を説明できる。 国民国家の形成が与えた影響を説明できる。 帝国主義と世界の植民化が与えた影響を説明できる。 第一次世界大戦と大衆化について説明できる。	日常生活での素朴な疑問に基づいて歴史への興味を深める。資料を根拠に歴史が描かれていることに理解する。 前近代からの「流れ」を通し近代化とその要点を述べる事ができる。 産業革命が社会に与えた影響とその要点を述べる事ができる 国民国家の形成が与えた影響とその要点を述べる事ができる。 帝国主義と世界の植民地化が与えた影響とその要点を述べる事ができる。 第一次世界大戦と大衆化についてその要点を述べる事ができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	歴史と私たち	我々が経験している身近な問題を通して歴史への興味関心を高めるとともに日本史と世界史が深く関係している点などを中心に講義する。	ノート（プリント）を見直し補完する。	20 10
2 ／	歴史の特質と資料	歴史は多様な資料にもとづいて叙述されている点を中心に講義する。 課題①を配布する。	ノート（プリント）を見直し補完する。	20 10
3 ／	近代化への問い	近代化にともなう人々の生活や社会の変容に関するいくつかのテーマを中心に講義する。 課題①を提出する。	ノート（プリント）を見直し補完する。	20 10
4 ／	18世紀の日本とアジアの経済と社会 ①	18世紀の日本と中国における生産と流通について講義する。 課題②を配布する。	ノート（プリント）を見直して補完する。	20 10
5 ／	18世紀の日本とアジアの経済と社会 ②	アジアに広がる交易システムと西洋列強とアジアの貿易を中心に講義する。 課題②を提出する。	ノート（プリント）を見直して補完する。	20 10
6 ／	工業化の進展と世界市場の形成 ① 産業革命	産業革命の影響、交通・通信手段の革新を中心に講義する。	ノート（プリント）を見直して補完する。	20 10
7 ／	工業化の進展と世界市場の形成 ②	中国の開港、日本の開国を中心に講義する。 課題③を配布する。	ノート（プリント）を見直して補完する。	20 10
8 ／	中間テスト 立憲体制と国民国家の形成 ①	中間テスト（50分間） 主権国家の成立、国民国家の成立を中心に講義する。	中間テストの準備をする。	60 10
9 ／	立憲体制と国民国家の形成 ②	幕末から明治維新かけての過程を中心に講義する。 課題③を提出する。	ノート（プリント）を見直して補完する。	20 10
10 ／	立憲体制と国民国家の形成 ③	明治初期の施策、明治憲法の制定を中心に講義する。 課題④を配布する。	ノート（プリント）を見直して補完する。	20 10

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	列強の帝国主義とアジア諸国の変容 ①	列強による世界分割と世界に広がる植民地を中心に講義する。 課題④を提出する。	ノート（プリント）を見直して補完する。	20 10
12 ／	列強の帝国主義とアジア諸国の変容 ②	日清戦争、日露戦争を中心に講義する。	ノート（プリント）を見直して 補完する。	20 10
13 ／	近代化と現代的な諸問題	近代化といくつかの現代的な諸問題を中心に講義する。 課題⑤を配布する。	ノート（プリント）を見直して 補完する。	20 10
14 ／	国際秩序の変化や大衆化への問い 明治から大正へ	国際秩序の変化や大衆化に関するいくつかのテーマを中心に講義する。 課題⑤を提出する。	ノート（プリント）を見直して補完する。	20 10
15 ／	発表	内容・発表の態度・作成資料などを評価する。	発表の準備をする 自分や他の受講者の発表について評価する。	60 10
16 ／	定期試験	定期試験（50分） 学生の歴史に対する知識と理解度を確かめる。	授業内容を学習する 試験内容・結果を確認する。	60 10
17 ／	試験返却（自己点検）			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	History and Culture IA (English)	1	623400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	BASQUILL, Edward	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	World History	Students will be able to explore, discuss, draw connections, and critically analyze thematic events throughout world history. Students will interact with these historical events through primary and secondary sources. Students will investigate the connections between historical events and communicate their findings, in English, through writing and presentations.
2	World cultures	
3	Ancient history	
4	Social history	
5	History of technology	

Course Description and Expectations for Students (10.5pt)

This thematically divided course will be delivered in classes which through a four-step process that will use guiding questions to help students interact with a variety of historical sources with the goal of finding the underlying connections between those sources. The four steps for each class are as follows: an introduction of a current event with a guiding question and an initial written reaction, a teacher-led activity with a core history topic in which students will take notes, a personal investigation of a student-selected topic from teacher-provided material and a written reflection in which students will recall their initial reaction and explain how it has evolved. The overarching theme for both World History (English) 1B and World History (English) is "Progress." This course will explore the concept of progress through two themes: (1) Power and responsibility and (2) culture and social change.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Traditions & Encounters 7th ed./IE McGraw-Hill ISBN: 9781260571011
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic computer skills and basic note-taking skills.

No.	Program Objectives	Target Abilities for Students (9pt)
①	e,i	Students will be able to recall and explain historical events within the context of a theme.
②	e,i	Students will be able to examine historical/current sources and identify key information related to a theme.
③	e,i	Students will be able to draw connections between historical/current events to answer questions related to a theme.
④	e,i	Students will be able to create and defend a position by providing support/evidence for their position.
⑤	e,i	Students will be able to plan, draft, and write history reports/presentations in English.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	30	20	0	40	0	100
20Comprehensive Strength Criteria	Ability to capture knowledge	0	10	15	10	0	20	0	55
	Ability to think, reason and create	0	0	10	5	0	10	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	5	0	10	0	20
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		2 Quizzes will be given throughout the semester. These quizzes will assess the students' understanding of workshops about writing historical reports. Quizzes will be graded and returned by the following class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	A final reflection paper based on the topic of "progress" that will include examples from the themes covered during the semester. Reports will be graded and returned within a week of being handed in.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①	✓	A final presentation based on the topic of "progress" that will include examples from the themes covered during the semester. Presentations will be graded at the time they are given.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Notes taken on various sections of class will be graded based on organization and content. Initial reaction statements to a current event will be given during the beginning of every class. Evolved reaction statements to the current event plus historical topics will be given for homework for every class. Portfolio will be graded and returned weekly.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to complete Quizzes, Reports, and Presentations and earn a combined score of 90% or higher.	Students will be able to complete Quizzes, Reports, and Presentations and earn a combined score of 60% to 89%.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Class orientation. Examine syllabus, study and practice effective note taking, discuss class structure, define historical thinking, define primary and secondary sources, study and practice citing and using sources.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion.	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
2 /	Workshop: Organizing and writing a paragraph. Topic sentences, main ideas, details, and evidence-based examples.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Quizzes: Post-workshop quiz.	30
3 /	How should we define power? 1. Related current event and reaction. 2. Julius Caesar and the Roman Republic. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
4 /	Relationship between power/responsibility? 1. Related current event and reaction. 2. Greece and the Peloponnesian War. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
5 /	Why do people accept authority? 1. Related current event and reaction. 2. Hitler and Nazi Germany. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
6 /	Is war ever justifiable? 1. Related current event and reaction. 2. Muhammad and Mecca. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
7 /	Do companies have responsibility to society? 1. Related current event and reaction. 2. The Great Depression. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
8 /	Why do people resist culture change? 1. Related current event and reaction. 2. The Boxer Rebellion. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
9 /	Why does culture change over time? 1. Related current event and reaction. 2. The Atlantic Slave Trade. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
10 /	Can culture change be forced? 1. Related current event and reaction. 2. The Mongols. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Monoculturalism or multiculturalism? 1. Related current event and reaction. 2. Hellenistic Period. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
12 /	Can technology change culture? 1. Related current event and reaction. 2. Agricultural Revolution. 3. Student selection of a related source. 4. Review of initial reaction and rewrite.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Portfolio: Class notes, Initial Reaction, and Evolved Reaction.	30
13 /	Workshop: writing essay introduction and conclusions.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Quizzes: Post-workshop quiz.	30
14 /	Reflection and Presentation Part 1 Outline and write an essay on the overall theme of “Progress” and how Power/Responsibility and Culture/Social Change are related to this theme.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Reports: Finalize essay draft	30
15 /	Reflection and Presentation Part 2 Use essay draft to create a presentation. Make a PPT and record a 10-minute presentation for the class.	Lecture, teacher-provided worksheets and documents, and teacher-led discussion	Reports: Revise essay using teacher feedback.	

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科　目　名	単 位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	歴史文化ＩＢ（日本語）	1	623500	後学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	上田 清史	白山麓 101.201		月曜日・木曜日 16：30－17：30

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	総力戦・国際協調	近現代の歴史の変化に関わる諸事象について、世界とその中の日本を広く相互的な 視野から捉え、現代的な諸問題の形成にかかわる近現代の歴史を理解するとともに、 諸資料から歴史に関する様々な情報を適切かつ効果的に調べまとめる技能を身に付けるようにする。
2	大衆化	
3	経済危機	
4	グローバル化	
5	冷戦	

授業の概要および学習上の助言

後学期では第一次世界大戦から冷戦締結とその後までを広くカバーする。先ずは二つの世界大戦の原因や国内・国際社会に与えた影響を考察する。また戦後期のグローバル化に対するいくつか「問い」を軸として冷戦期の分断する世界と日本の復興などを捉えてゆく。また近現代史を振り返りつつ冷戦締結後の新しい国際秩序について考えてゆく。

授業内容について理解が不十分と感じるところがあれば質問すること。講義のメモを取り各自でノートを補完すること。

【教科書および参考書・リザーブドブック】
教科書：「私たちの歴史総合」明和社（令和４年）
参考書：　ハンドアウト
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	c, e	総力戦と第一次世界大戦後の国際協調体制の成立を説明できる。
②	c, e	大衆社会の形成とその影響について説明できる。
③	c, e	経済危機と第二次世界大戦について説明できる。
④	c, e	グローバル化の長所とその諸問題を説明できる。
⑤	c, e	冷戦期の分断する世界と日本の民主化・経済復興を説明できる。
⑥	c, e	近現代史を振り返りつつ冷戦締結後の新しい世界秩序について考えることが出来る。

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		20	20	20	20	0	20	0	100
総合力指標	知識を取り込む力	8	8	5	5	0	5	0	31
	思考・推論・創造する力	4	4	8	8	0	5	0	29
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	8	8	7	7	0	5	0	35
	学習に取組む姿勢・意欲	0	0	0	0	0	5	0	5

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		定期試験。論述式問題の答案を四つの基準から評価する。①「歴史の流れ」に対する理解度。②解答の内容における史実の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。（20%）
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
クイズ 小テスト	①	✔	中間テスト。論述式問題の解答を四つの基準から評価する。①「歴史の流れ」に対する理解度。②解答の内容における史実の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。（20%）
	②	✔	
	③		
	④		
	⑤		
	⑥		
レポート	①	✔	５つの課題：効果的な「考え方」や「書き方」などを指導する。 課題は授業で配布され次の授業の始まりに提出する。翌週の授業までに採点され返却される。 （20%）
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
成果発表 （口頭・実技）	①		１回の発表：教員と相談した上で後学期に学んでいる歴史の内容からテーマを決定する。 個人発表の次の点を評価する：内容、スタイル（方法）、パワーポイントなどの補助資料、資料 （史料）の提示など。翌週の授業までに発表の評価を受ける。（20%）
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	✔	ポートフォリオにはリフレクションペーパー・配布資料（メモを取ること）・５つの課題・中間テスト・発表の補助資料（１点）や関係のある場合はその他を添えること。これは学期末（最後の授業）に提出する。（20%）
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
総力戦と第一次世界大戦後の国際協調体制の成立を説明できる。 大衆社会の形成とその影響について説明できる。 経済危機と第二次世界大戦について説明できる。 グローバル化の長所とその諸問題を説明できる。 冷戦期の分断する世界と日本の民主化・経済復興を説明できる。 近現代史を振り返りつつ、冷戦締結後に新しい世界秩序の構築が模索されていることを説明できる。	総力戦と第一次世界大戦後の国際協調体制の成立の要点について述べる事が できる。 大衆社会の形成とその影響の要点について述べる事ができる。 経済危機と第二次世界大戦の要点について述べる事ができる。 グローバル化の長所とその諸問題の要点について述べる事ができる。 冷戦期の分断する世界と日本の民主化・経済復興の要点について述べる事ができる。 近現代史を振り返りつつ、冷戦締結後に新しい世界秩序の構築が模索さ れていることを知る。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	総力戦と第一次世界大戦後の国際協調体制	第一次世界大戦の展開、日本やアジアの経済成長を中心に講義する。	ノート（プリント）を見直して補完する。	20 10
2 ／	総力戦と第一次世界大戦後の国際協調体制	ソビエト連邦の成立や米国の台頭を中心に講義する。 課題①を配布する。	ノート（プリント）を見直して補完する。	20 10
3 ／	大衆社会の形成と社会運動の広がり	大衆の政治参加と女性の地位向上、大正デモクラシーと政党政治を中心に講義する。 課題①を提出する。	ノート（プリント）を見直して補完する。	20 10
4 ／	大衆社会の形成と社会運動の広がり	大量消費社会と大衆文化、教育の普及、マスメディアの発達を中心に講義する。 課題②を配布する。	ノート（プリント）を見直して補完する。	20 10
5 ／	経済危機と第二次世界大戦 国際協調体制の動揺	世界恐慌、ファシズムの台頭、日本の動揺と対外政策を中心に講義する。 課題②を提出する。	ノート（プリント）を見直して補完する。	20 10
6 ／	経済危機と第二次世界大戦 第二次世界大戦後の国際秩序と日本の国際社会への復帰	第二次世界大戦と日本の参戦、国際連合の成立とブレントン＝ウッズ体制を中心に講義する。	ノート（プリント）を見直して補完する。	20 10
7 ／	経済危機と第二次世界大戦 第二次世界大戦後の国際秩序と日本の国際社会への復 帰	冷戦の始まりと東アジアの動向、連合軍の戦後改革、講和条約の締結、日本の独立回復について講義する。	ノート（プリント）を見直して補完する。	20 10
8 ／	中間テスト グローバル化への問い	中間テスト（50分間） 7つの問いを中心に講義する。 課題③を配布する。	中間テストの準備をする。	60 10
9 ／	冷戦と世界経済 国際政治の変容	脱植民地化と非同盟国、冷戦下の地域紛争と日本の戦後処理を中心に講義する。 ① 課題③を提出する。	ノート（プリント）を見直して補完する。	20 10
10 ／	冷戦と世界経済 国際政治の変容	脱植民地化と非同盟国、冷戦下の地域紛争と日本の戦後処理を中心に講義する。 ②	ノート（プリント）を見直して補完する。	20 10

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	国際経済の拡大と日本の高度成長期	地域連携が進む西ヨーロッパと東南アジア、社会主義経済の広がり、高度成長期下の日本を中心に講義する。	ノート（プリント）を見直して補完する。	20 10
12 ／	世界秩序の変容と日本 市場経済の変容と課題	2度の石油危機、アジア諸地域の経済発展を中心に講義する。	ノート（プリント）を見直して補完する。	20 10
13 ／	市場経済の変容と課題	市場開放と経済の自由化、情報通信技術の発展を中心に講義する	ノート（プリント）を見直して補完する。	20 10
14 ／	冷戦終結後の国際政治の変容と課題	冷戦の終結、民主化の進展、地域統合の拡大、地域紛争への対応を中心に講義する。	ノート（プリント）を見直して補完する	20 10
15 ／	発表	内容・発表の態度・作成資料などを評価する。	発表の準備をする	60 10
16 ／	定期試験	定期試験（50分）	授業内容を学習する 試験内容・結果を確認する。	60 10
17 ／	試験返却（自己点検）			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	History and Culture IB (English)	1	623600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	UEDA, Kiyoshi	HC 101.201		Monday/Thursday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Total War	This course aims to guide student to grasp various phenomena with regards to changes that took place in early modern and modern periods of history, to understand how early modern and modern history affected the development of various contemporary issues, and to acquire skills to effectively research information about history from various sources and summarize it.
2	International Cooperation	
3	Popularization	
4	Economic Crisis	
5	Globalization	
6	Cold War	

Course Description and Expectations for Students (10.5pt)

In the second semester, this course will broadly cover the period from the First World War to the end of the Cold War and beyond. First, it will examine the origins of two world wars and their effects on domestic societies and international communities. It will go on to study the divided world during the Cold War and the reconstruction of Japan from the perspectives of several questions on globalization in the postwar period. In addition, the course will advance to the new international order after the end of the Cold War by reflecting on early modern and modern history.

Students are urged to ask questions if they do not fully understand the contents of lectures. They should complement their notes by taking memos during the lectures.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Handout
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

History and Culture IA (English)

No.	Program Objectives	Target Abilities for Students (9pt)
①	c,e	Students will be able to explain the idea of total war and establishment of the system of international cooperation after the First World War.
②	c,e	Students will be able to explain the formation of mass society and its effects.
③	c,e	Students will be able to explain economic crisis and the Second World War.
④	c,e	Students will be able to explain the merits of globalization and its problems.
⑤	c,e	Students will be able to explain the divided world during the Cold War and the democratization and economic reconstruction of Japan.
⑥	c,e	Students will be able to give their thoughts about the new world order after the Cold War by reflecting on early modern/modern history.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	0	20	20	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	0	5	8	0	5	0	28
	Ability to think, reason and create	15	0	8	4	0	5	0	32
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / expression / communication	10	0	7	8	0	5	0	30
	Attitude and motivation for learning	5	0	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		Final Examination. Answers to essay-type questions will be evaluated on the basis of 4 criteria. First, a level of comprehension of the "course of history" and "geographical condition." Second, the accuracy of historical facts in the contents of an answer. Third, the relevance and logic of answers to the examination question. Fourth, concise sentences and good textual structure. (20%)
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	Mid-Term Test. Answers to essay-type questions will be evaluated on the basis of 4 criteria. First, a level of comprehension of the "course of history" and "geographical condition." Second, the accuracy of historical facts (*shijitsu*) and facts (*jijitsu*) in the contents of an answer. Third, the relevance and logic of answers to the examination question. Fourth, concise sentences and good textual structure. (20%)
	②	✓	
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	There will be five assignments; the instructor will explain how to think and how to write effectively. Each assignment will be distributed in class and submitted at the beginning of the next class. Assignments will be evaluated and returned the following week. (20%)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		There will be one presentation at the end of the semester. Students will choose topics on the "course of history" and "geographical condition" in consultation with the instructor. Individual presentations will be evaluated on the following points: contents, style, method, supporting material such as power-point, the indication of sources, the role of an individual presenter for the group, etc. The presentation will be evaluated and returned the following week. (20%＋20%＝40%)
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	The portfolio must include a reflection paper, all handouts, 5 assignments, supporting material for one presentation, and other work when relevant. Work will be comprehensively evaluated, together with students' volition and attitudes to learning. Students will submit the portfolio by the end of the semester. (20%)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to explain: • the idea of total war and the establishment of the system of international cooperation after the First World War; • the formation of mass society and its effects; • economic crisis and the Second World War; • merits and problems of globalization; • the divided world during the Cold War and democratization and economic reconstruction of Japan; • the new world order after the end of the Cold War by reflecting on early modern/modern history.	Students can explain the main points of: • the idea of total war and the establishment of the system of international cooperation after the First World War; • the formation of mass society and its effects; • economic crisis and the Second World War; • merits and problems of globalization; • the divided world during the Cold War and the democratization and economic reconstruction of Japan; • the new world order after the end of the Cold War by reflecting on early modern/modern history.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Total war and the system of international cooperation after the First World War	Lecture on development of the First World War, the economic growth of Japan and Asia.	Review course contents.	20 10
2 /	Total war and the system of international cooperation after the First World War	Lecture on establishment of the Soviet Union and the rise of the United States. Distribute assignment ①	Review course contents.	20 10
3	Development of mass society and spread of social movements	Lecture on mass participation in politics and the improvement of the status of women, Taisho Democracy, and party politics. Submit assignment ①	Review course contents.	20 10
4 /	Development of mass society and spread of social movements	Lecture on mass consumer society and mass culture, popularization of education, and development of mass media. Distribute assignment ②	Review course contents.	20 10
5 /	Economic crisis and the Second World War Disturbance to the system of international cooperation	Lecture on World Depression, the rise of Fascism, Japan's disturbance, and its external policies. Submit assignment ②	Review course contents.	20 10
6 /	Economic crisis and the Second World War World order after the Second World War Japan's return to the international community	Lecture on Second World War and Japan's participation, establishment of the League of Nations and Breton-Woods System.	Review course contents.	20 10
7 /	Economic crisis and the Second World War World order after the Second World War Japan's return to the international community	Lecture on the onset of Cold War and the trend in Asia, the Allies' postwar reform, conclusion of peace treaty, restoration of Japan's independence.	Review course contents.	20 10
8 /	Mid-term test Various questions on globalization	Mid-term test (50 minutes) Lecture on 7 questions. Distribute assignment ③	Prepare for mid-term test.	60 10
9 /	The Cold War and world economy Transformation of international politics	Lecture on the process of decolonization and nonaligned nations, regional conflicts in the Cold War, and postwar processes of Japan. ① Submit assignment ③	Review course contents.	20 10
10 /	The Cold War and world economy Transformation of international politics	Lecture on the process of decolonization and nonaligned nations, regional conflicts in the Cold War, and postwar processes of Japan. ②	Review course contents.	20 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Expansion of international economy and Japan's period of high economic growth	Lecture on Western Europe and Southeast Asia where regional cooperation was underway, the spread of the socialist economy. Distribute assignment ④	Review course contents.	20 10
12 /	Transformation of world order and Japan's transformation of market economy and its challenges	Lecture on two oil crises and economic development of various regions of Asia. Submit assignment ④	Review course contents.	20 10
13 /	Transformation of world order and Japan's transformation of market economy and its challenges	Lecture on open market and economic liberalization and the development of information technology. Distribute assignment ⑤	Review course contents.	20 10
	Transformation of international politics after the end of the Cold War	Lecture on the ending of the Cold War. Submit assignment ⑤	Review course contents.	20 10
15 /	Presentation	Evaluate contents, students' manner of presentation, prepared material, etc.	Prepare presentation.	60 10
16 /	Final Exam	Evaluate students' overall understanding of the subject.	Study overall course contents. Review exam contents.	60 10
17 /	Self-check			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Pre-Calculus A	2	611000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	KIHARA, Hitoshi HUSSIEN, Alaa	Hakusanroku C 101. 201		(M-F) 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Sets	Students will be able to manipulate algebraic expressions, rational expressions, equations and inequalities using properties of real numbers, define a function and its properties, graph functions via graphing transformation techniques, combine functions through algebraic operations and composition of functions, determine if functions are one to one by the Horizontal line test, and define inverse functions, its properties and graph.
2	Algebraic Expressions	
3	Rational Expressions	
4	Function Transformations	
5	Inverse Functions	

Course Description and Expectations for Students (10.5pt)

In this course, we will study the real numbers thoroughly, starting with the idea of a set. We will pay close attention to the properties of real numbers, exponents and radicals. We will then talk about algebraic and rational expressions, which then lead to the idea of an equation. We will then study complex numbers and inequalities. Finally, we will introduce the idea of a function, the graph of a function, terminology of functions like domain and range, transformation techniques for graphing functions, the algebra of functions, composition of functions, one-to-one functions and inverse functions.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart (Brooks/Cole Pub Co) ISBN-13: 978-1305071759

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a basic understanding of numbers and operations on numbers.
It is advised that students should feel comfortable asking questions in and outside of the class. Further, students should take the worksheet problems in class serious in order to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g, i	Students will be able to manipulate algebraic and rational expressions, equations and inequalities.
②	a, d, g, i	Students will be able to define a function, understand its properties and graph.
③	a, d, f, g	Students will be able to graph functions via techniques of graphing transformations.
④	a, d, g, i	Students will be able to combine functions through algebraic operations and composition of functions.
⑤	a, d, g, i	Students will be able to determine if a function is one-to-one by the horizontal line test.
⑥	a, g, i	Students will be able to define an inverse function, understand its properties and graph.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	50	20	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	25	5	0	0	0	0	45
	Ability to think, reason and create	15	25	5	0	0	0	0	45
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover material for latter half of this semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework and quizzes before a test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each lecture which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. These quizzes are meant to make sure you are keeping up with the class. And there will be one mid-term test which will cover material for former half of this semester. It is worth 30% of your grade, so 50% of your final grade will be obtained through these quizzes and mid-term test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment each lecture. The grading criteria will be based on whether or not you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are curious, ask a lot of questions and show willingness to try new ideas, no matter of failure. Students further understand that making mistakes is crucial to learning and go back and correct any mistakes they encountered in their work/HW/quizzes/exams. In essence, students learn the procedure of learning.	Students address their weaknesses in specific topics and form a plan in order to succeed in Calculus.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction Introduce the syllabus and the rules for the class.	Lecture	Review: Read the syllabus. Preparation: Read Section 1.1.	30
2 /	Sets Part I Understand the idea of a set and set relations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.1.	30
3 /	Sets Part II Understand the properties of real numbers and set-builder notation.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.1.	30
4 /	Real Numbers Understand the subsets of real numbers and several ways of expressing them.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.1.	30
5 /	Absolute value and Decimal representation Understand the absolute value and decimal representation of real numbers.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.1.	30
6 /	Exponents Understand exponential notation, laws of exponents and how to write a number in scientific notation.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.2.	30
7 /	Radicals Understand the definition of the nth root and properties of the nth root. Also, understand the definition of rational exponents and how to rationalize the denominator.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.2.	30
8 /	Algebraic Expressions Part I Understand what an algebraic expression is. Understand algebraic terminology for polynomials. Also, understand special product formulas and how to multiply polynomials by the distributive property.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.3.	30
9 /	Algebraic Expressions Part II Understand the following factoring techniques: by common factors, trinomials, special formulas and by grouping.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.3.	30
10 /	Rational Expressions Part I Understand what a rational expression is. Understand the definition of the domain of an algebraic expression. Also, understand how to simplify rational expressions and how to multiply and divide rational expressions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.4.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Rational Expressions Part II Understand how to add and subtract rational expressions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.4.	30
12 /	Rational Expressions Part III Understand how to compound fractions and how to rationalize the denominator or numerator.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.4.	30
13 /	Equations Part I Understand the properties of equality, linear equations, quadratic equations and the zero-product property.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.5.	30
14 /	Equations Part II Understand how to complete the square, the quadratic formula and the discriminant.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.5.	30
15 /	Equations Part III Understand how to solve the rational equations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.5.	30
16 /	Equations Part IV Understand how to solve the radical equations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.5.	30
17 /	Summary and review of unclear parts in the previous topics.	Quiz Review all worksheets and ask any question for any difficult problem.	Review the topics studied in the previous classes Review all the worksheets problems	30
18 /	Mid-term test	A quick review. Have the mid-term test.	Review all the worksheets problems.	90
19 /	Complex Numbers Part I Understand the definition of a complex number and arithmetic operations on complex numbers.	Mid-term test return Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.6.	30
20 /	Complex Numbers Part II Understand square roots of negative numbers and how we can get complex solutions for quadratic equations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.6.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Inequalities Understand rules of inequalities, how to solve linear inequalities and non-liner inequalities.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 1.8.	30
22 /	Functions Understand the definition of a function, how to analyze a function, how to evaluate a function.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.1.	30
23 /	Graphs of Functions Part I Understand the definition of a graph, how to draw a graph of a function by plotting points for: $x^2, \sqrt{x}, x, x^3, \sqrt[3]{x}$ and for piece-wise functions: $\lvert x\rvert, \lceil x\rceil, \lfloor x\rfloor$.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.2.	30
24 /	Graphs of Functions Part II Understand the vertical line test, how to obtain the domain and range from a graph.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.2.	30
25 /	Transformations of Functions Part I Understand how to graph a function by vertical and horizontal shifts. Also, understand how to reflect graphs about the x-axis and the y-axis.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.6.	30
26 /	Transformations of Functions Part II Understand how to graph functions by vertical stretching and shrinking. Also, by horizontal stretching and shrinking.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.6.	30
27 /	Combining Functions Understand the algebra of functions and the composition of functions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.7.	30
28 /	One-to-One Functions and their Inverses Part I Understand the definition of a one-to-one function and how to determine if a function is one-to-one by the horizontal line test. Also, understand what it means to be an inverse function and the inverse function property.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.8.	30
29 /	One-to-One Functions and their Inverses Part II Understand how to find the inverse of a function and how to graph the inverse of a function.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 2.8.	30
30 /	Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	Final exam		Review all materials	120
32 /	Final exam return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Pre-Calculus B	2	611100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	KIHARA, Hitoshi HUSSIEN, Alaa	Hakusanroku C 101. 201		(M-F) 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Polynomial Functions	Students will be able to define a quadratic function and its graph, learn about the general polynomial of degree n and its basic graphs, divide polynomials by long division and synthetic division, define a rational function and learn about its properties and graph, define an exponential function and learn about its properties and graph, and define a logarithmic function and learn about its properties and graph.
2	Dividing Polynomials	
3	Rational Functions	
4	Exponential Functions	
5	Logarithmic Functions	

Course Description and Expectations for Students (10.5pt)

This course will continue with the ideas of pre-calculus, starting with quadratic functions. We will have a thorough study of quadratic functions, polynomial functions, their properties and graphs. We will then learn how to divide polynomials by the division algorithm and learn how to completely factor a polynomial by the Fundamental Theorem of Algebra and the Complete Factorization Theorem. We will then talk about Rational Functions and partial fraction decomposition. The other half of the class will focus on exponential functions, their graphs and properties, as well as logarithmic functions, their graphs and properties.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart (Brooks/Cole Pub Co) ISBN-13: 978-1305071759

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a good understanding about the topics covered in the previous class about functions.
It is advised that students should feel comfortable asking questions in and outside of the class. Further,
students should take the worksheet problems in class serious in order to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g, i	Students will be able to define a quadratic function, its properties and graph.
②	a, d, g, i	Students will be able to define a polynomial function of degree n, its properties and basic graphs.
③	a, d, f, g	Students will be able to divide polynomials by long division and by synthetic division.
④	a, d, g, i	Students will be able to define a rational function, its properties and graph.
⑤	a, d, g, i	Students will be able to define an exponential function, its properties and graph.
⑥	a, g, i	Students will be able to define a logarithmic function, its properties and graph.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	50	20	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	25	5	0	0	0	0	45
	Ability to think, reason and create	15	25	5	0	0	0	0	45
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover material for latter half of this semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework and quizzes before a test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each lecture which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. These quizzes are meant to make sure you are keeping up with the class. And there will be one mid-term test which will cover material for former half of this semester. It is worth 30% of your grade, so 50% of your final grade will be obtained through these quizzes and mid-term test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment each lecture. The grading criteria will be based on whether or not you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are curious, ask a lot of questions and show willingness to try new ideas, no matter of failure. Students further understand that making mistakes is crucial to learning and go back and correct any mistakes they encountered in their work/HW/quizzes/exams. In essence, students learn the procedure of learning.	Students address their weaknesses in specific topics and form a plan in order to succeed in Calculus.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction Quadratic Functions Part I Understand the general and standard form of a quadratic function.	Lecture Worksheet	Review: Read the syllabus. Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.1.	30
2 /	Quadratic Functions Part II Understand maximum and minimum values of quadratic functions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.1.	30
3 /	Polynomial Functions and their Basic Graphs I Understand the definition of a polynomial of degree n, how to graph monomials using graphing transformations and the end behavior of polynomials.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.2.	30
4 /	Polynomial Functions and their Basic Graphs II Understand how to use zeros to graph a polynomial function.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.2.	30
5 /	Dividing Polynomials Part I Understand how to do long division of polynomials by the division algorithm.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.3.	30
6 /	Dividing Polynomials Part II Understand how to divide of polynomials by synthetic division and how to transform the answer in the form of $P(x)=Q(x)\times D(x)+R(x)$.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.3.	30
7 /	Dividing Polynomials Part III Understand how to use the Remainder Theorem and the Factor Theorem.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.3.	30
8 /	Rational Zeros of Polynomials Understand how to use the Rational Zeros Theorem to find the rational zeros of a polynomial.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.4.	30
9 /	Complex Zeros and the Fundamental Theorem of Algebra Part I Understand how to use the Fundamental Theorem of Algebra and the Complete Factorization Theorem in order to factor a polynomial completely.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.5.	30
10 /	Complex Zeros and the Fundamental Theorem of Algebra Part II Understand the Conjugate Zeros Theorem and how it helps us to find polynomials with specified zeros.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.5.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Rational Functions Part I Understand the definition of a rational function. Understand how graphing the simple rational function $y = \frac{1}{x}$ helps us define the vertical and horizontal asymptotes.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.6.	30
12 /	Rational Functions Part II Understand how to find vertical asymptotes, horizontal asymptotes, domain and range of a rational function. Also, understand the three cases for horizontal asymptotes.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.6.	30
13 /	Rational Functions Part III Understand how to graph rational functions by using x-int, y-int and asymptotes.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.6.	30
14 /	Rational Functions Part IV Understand the definition of holes and slant asymptotes and how to graph rational functions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.6.	30
15 /	Polynomial & Rational Inequalities Understand how to solve polynomial and rational inequalities.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 3.7.	30
16 /	Partial Fractions Understand how to perform partial fraction decomposition	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 10.7.	30
17 /	Summary and review of unclear parts in the previous topics.	Quiz Review all worksheets and ask any question for any difficult problem.	Review the topics studied in the previous classes Review all the worksheets problems	30
18 /	Mid-term test	A quick review. Have the mid-term test.	Review all the worksheets problems.	90
19 /	Exponential Functions Part I Understand the definition of an exponential function, its graph and its properties. Also, understand how to graph exponential functions by techniques of graphing transformations.	Mid-term test return Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.1.	30
20 /	Exponential Functions Part II Understand the definitions of the number e, and how to find the values of the natural exponential function. Also, understand how to graph the natural exponential function by techniques of graphing transformations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.2.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Exponential Functions Part III Understand the compound interest formula and the continuously compound interest formula	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.2.	30
22 /	Logarithmic Functions Part I Understand the definition of the logarithmic function and be able to use the definition to convert from an exponential equation to a logarithmic equation. Understand the notion of a common logarithm and a natural logarithm and properties of logarithms.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.3.	30
23 /	Logarithmic Functions Part II Understand how to graph logarithmic functions by techniques of graphing transformations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.3.	30
24 /	Laws of Logarithms Part I Understand the laws of logarithms and how to use them to expand and combine logarithms. Also, understand how to evaluate logarithmic expressions using laws of logarithms.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.4.	30
25 /	Laws of Logarithms Part II Understand how to use the change of base formula.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.4.	30
26 /	Exponential Equations Understand how to solve exponential equations.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.5.	30
27 /	Logarithmic Equations Understand how to solve logarithmic equations	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.5.	30
28 /	Exponential and Logarithmic Inequalities Understand how to solve inequalities	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.5.	30
29 /	Modeling with Exponential Functions and Logarithmic Scales Understand how to model with exponential functions and logarithmic functions.	Quiz Lecture Worksheet	Review: Finish worksheet/HW. Prepare the quiz. Preparation: Read Section 4.6.	30
30 /	Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	Final exam		Review all materials	120
32 /	Final exam return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Mathematics A	2	611500	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH, Brandon KIHARA, Hitoshi	Hakusanroku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Equations of lines and circles	The goal of this course in to gather an understanding of fundamental techniques and relationships within mathematics. This course specifically deals with mathematical interpretation, both graphically and using calculations, of different geometric shapes like, lines, circles, and triangles. Students will learn the relationships and will be able to practice and implement them through problem solving.
2	Trigonometric Functions	
3	The Unit Circle	
4	Trigonometric Identities	
5	Solving Trigonometric Equations	

Course Description and Expectations for Students (10.5pt)

The purpose of this course is to teach the fundamental mathematical skills that will be required in future classes, not only in mathematics but in other courses related to S.T.E.M.

In this course:
- Students must submit all exercises and quizzes.
- All late submissions will result in a decrease in the score on that assignment.
- All classes will be conducted in English.
- Students will submit class notes.

This class builds on important mathematical concepts that will be used throughout your time at ICT. If there is a topic that you do not understand please ask a classmate, a learning mentor, or schedule a meeting with one of the teachers so that we can help.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: "Pre-Calculus: Mathematics for Calculus 7th Edition"(CENGAGE LEARNING) ISBN 978-1-305-07175-9
Reference books: "Higher Level Mathematics 2012 Edition" (PEARSON) ISBN 978-0-435-07496-8
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic mathematical skills from junior high school mathematics courses.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to write the equations and graph lines and circles.
②	h,i	Students will be able to use trigonometric functions to solve problems.
③	h,i	Students will be able to use trigonometric identities to simplify and solve equations.
④	h,i	Students will be able to use the unit circle to solve problems using trigonometry.
⑤	h,i	Students will be able to connect the concepts learned with how they can be used in other subjects as well as in mathematics.
⑥	d,h,i	Students will be able to complete assignments and use study skills to review material learned throughout the course.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		20	45	25	0	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	25	10	0	0	0	0	45
	Ability to think, reason and create	10	20	15	0	0	0	0	45
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	5	0	5
	Attitude and motivation for learning	0	0	0	0	0	5	0	5

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	∠	There is an exam at the end of the semester, worth 20% of your overall grade in the course, which contains the content covered in the second half of the course.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Quizzes	①	∠	At the beginning of a new topic, there will be a quiz about the previous topic as marked in the syllabus. These quizzes are worth a total of 25% of the total score in the course. There is a mid-term test which covers the content in the first half of the course. This test is worth 20% of the overall grade in the course.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Reports	①	∠	Each class students will receive an exercise containing problems relevant to the topics discussed in the course. Students should complete this exercise in class unless stated by the instructor.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		In class students will take notes. At the beginning of each month, their notes will be checked for completeness and accuracy.
	②		
	③		
	④		
	⑤		
	⑥	∠	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to interpret and utilize trigonometric identities and properties in order to solve problems. Students will interpret and make the graphs of different shapes and understand the connections these methods share. Students will understand the how trigonometric identities are derived and can select which identities can be used in a variety of problem settings.	Students will be able to use trigonometric functions to solve problems. Students will be able to graph different shapes. Students will be able to understand the different between different trigonometric identities.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course Introduction and Syllabus Introduction of Lines ➢ Distance/Midpoint Formula ➢ Finding equation of a line	Lecture and Exercise	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 1.10	10 20
2 /	Graphing Lines ➢ Slope Intercept Form ➢ Graphing Lines	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 1.10	10 20
3 /	Equation for Parallel and Perpendicular Lines	Lecture and Exercise Quiz	Review, complete exercise	10
4 /	Equation of a Circle ➢ General Form of a Circle ➢ From 3 Points	Lecture and Exercise Quiz	Review, complete exercise	10
5 /	Circles and Tangent Lines	Lecture and Exercise Quiz	Review, complete exercise	10
6 /	Introduction to Pythagorean Theorem	Lecture and Exercise Quiz	Review, complete exercise	10
7 /	Introduction to Trigonometry ➢ Angles ➢ Arc Length and Sectors	Lecture and exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.1	10 20
8 /	Right Triangles ➢ Trigonometric functions ➢ Special Triangles	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.2	10 20
9 /	Right Triangles ➢ Area of a Triangle ➢ Inverse Trig Functions	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.4	10 20
10 /	Solving Problems with Right Triangles	Exercise Quiz	Review, complete exercise	10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Trigonometric Functions with Coordinates ➢ Reference Angle	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.3	10 20
12 /	The Unit Circle	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 5.1	10 20
13 /	Review for Midterm Test	Exercise Quiz	Review, complete exercise	10
14 /	Midterm Test	Test	Review, complete exercise	10
15 /	Law of Sine ➢ Definition of Law of Sine	Lecture and Exercise	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.5	10
16 /	Law of Sine	Lecture and Exercise	Review, complete exercise	10
17 /	Law of Cosine	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 6.6	10 20
18 /	Law of Cosine	Lecture and Exercise	Review, complete exercise	10
19 /	Pythagorean Identities	Lecture and Exercise Quiz	Review, complete exercise	10
20 /	Trigonometric Identities	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 7.1	10 20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Solving Trigonometric Equations	Lecture and Exercise Quiz	Review, complete exercise	10
22 /	Trigonometry Operations ➢ Addition Formula	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 7.2	10 20
23 /	Trigonometry Operations ➢ Subtraction Formula	Lecture and Exercise Quiz	Review, complete exercise	10 20
24 /	Solving Equations using Addition and Subtraction Formulas	Exercise Quiz	Review, complete Exercise	
25 /	Trigonometry Operations ➢ Double-Angle	Lecture and Exercise	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 7.3	10 20
26 /	Trigonometry Operations ➢ Half-Angle	Lecture and Exercise Quiz	Review, complete exercise	10 20
27 /	Trigonometry Operations ➢ Product-Sum	Lecture and Exercise Quiz	Review, complete exercise	10 20
28 /	Solving Equations using Trig Identities	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 7.4	10 20
29 /	Solving Equations using Trig Identities	Exercise	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 7.5	10 20
30 /	Review for Final Exam	Exercise Quiz	Review, complete exercise	30
31 /	Final Exam			
32 /	Return Final Exam Score			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Mathematics B	2	611500	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH, Brandon KIHARA, Hitoshi	Hakusanroku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Inequality	The goal of this course in to gather an understanding of fundamental techniques and relationships within mathematics. This course specifically deals with inequalities as well as probability and statistics. Students will learn the relationships and will be able to practice and implement them through problem solving.
2	Trigonometric Graphs	
3	Statistics	
4	Probability	
5	Control Chart	

Course Description and Expectations for Students (10.5pt)

The purpose of this course is to teach the fundamental mathematical skills that will be required in future classes, not only in mathematics but in other courses related to S.T.E.M.

In this course:
- Students must submit all exercises and quizzes.
- All late submissions will result in a decrease in the score on that assignment.
- All classes will be conducted in English.
- Students will submit class notes.

This class builds on important mathematical concepts that will be used throughout your time here at ICT. If there is a topic that you do not understand please ask a classmate, a learning mentor, or schedule a meeting with one of the teachers so that we can help.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: "Pre-Calculus: Mathematics for Calculus 7th Edition"(CENGAGE LEARNING) ISBN 978-1-305-07175-9
Reference books: "Higher Level Mathematics 2012 Edition" (PEARSON) ISBN 978-0-435-07496-8
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic mathematical skills from junior high school mathematics courses.
Skills and concepts from Fundamental Mathematics A

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to graphically and numerically calculate inequalities.
②	h,i	Students will be able to understand different statistical terms and techniques.
③	h,i	Students will be able to use probability analysis to find different values.
④	h,i	Students will be able to create graphs for trigonometry functions.
⑤	h,i	Students will be able to connect the concepts learned with how they can be used in other subjects as well as in mathematics.
⑥	d,h,i	Students will be able to complete assignments and use study skills to review material learned throughout the course.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		20	40	20	10	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	20	10	0	0	0	0	40
	Ability to think, reason and create	10	20	10	3	0	0	0	43
	Collaboration and leadership	0	0	0	3	0	0	0	3
	Announcement / Expression / Communication	0	0	0	2	0	5	0	7
	Attitude and motivation for learning	0	0	0	2	0	5	0	7

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There is an exam at the end of the semester, worth 20% of your overall grade in the course, which contains the content covered in the second half of the course.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	At the beginning of a new topic, there will be a quiz about the previous topic as marked in the syllabus. These quizzes are worth a total of 20% of the total score in the course. There is a mid-term test which covers the content in the first half of the course. This test is worth 20% of the overall grade in the course.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Each class students will receive an exercise containing problems relevant to the topics discussed in the course. Students should complete this exercise in class, but if a student could not complete it, then it should be completed by the date designated by the instructor.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		There will be a data analysis project worth a total of 10% of the final score in the class at the end of the semester.
	②		
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		In class students will take notes. At the beginning of each month, their notes will be checked for completeness and accuracy.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to understand graphically and numerically the solutions to inequalities of different types of functions. Students are able to create and understand graphs of trigonometry functions. Students will be able to understand and use statistical properties to evaluate a real data set. Students will be able to use probability terms and methods to analyze data sets.	Students will be able to calculate inequalities of standard functions. Students will be able to calculate different statistical values. Students will be able to calculate key values in probability.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Review of Fundamental Mathematics A	Lecture and Exercise	Review, complete exercise	10
2 /	Linear Inequalities	Lecture and Exercise	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 1.8	10 20
3 /	Quadratic Inequalities	Lecture and Exercise Quiz	Review, complete exercise	10
4 /	Trigonometric Inequalities	Lecture and Exercise Quiz	Review, complete exercise	10
5 /	Solving Systems of Inequalities Graphically	Lecture and Exercise Quiz	Review, complete exercise	10
6 /	Solving Systems of Inequalities Graphically	Lecture and Exercise	Review, complete exercise	10
7 /	Linear Programming	Lecture and exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 10	10 20
8 /	Graphing Trigonometric Functions ➢ Sine Function ➢ Cosecant Function	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 5.3 & 5.5	10 20
9 /	Graphing Trigonometric Functions ➢ Cosine Function ➢ Secant Function	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 5.3 & 5.5	10 20
10 /	Graphing Trigonometric Functions ➢ Tangent Function ➢ Cotangent Function	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Pre-Calculus” textbook section 5.4 & 5.5	10 20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Graphing Trigonometric Functions Practice	Lecture and Exercise Quiz	Review, complete exercise	10 20
12 /	Importance of Statistics and Definitions of Statistical Terms ➢ Mean, Median, and Mode of Data	Lecture and Exercise	Review, complete exercise DUE: Read “Mathematics” textbook section 11.1 & 11.2	10 20
13 /	Range, Variance, and the Standard Deviation Percentile and Quartiles of data Box Plots	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Mathematics” textbook section 11.3	10 20
14 /	Review for Midterm Test	Exercise Quiz	Review, complete exercise	10 20
15 /	Midterm Test	Test	Review, complete exercise	10
16 /	Randomness	Lecture and Exercise	Review, complete exercise DUE: Read “Mathematics” textbook section 12.1	10 20
17 /	Probability Terms ➢ Tree and Grid Diagrams ➢ Venn Diagrams	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Mathematics” textbook section 12.2 & 12.3	10 20
18 /	Counting Principles (Permutations)	Lecture and Exercise Quiz	Review, complete exercise	10 20
19 /	Counting Principles (Combinations)	Lecture and Exercise Quiz	Review, complete exercise	10 20
20 /	Outcomes ➢ Probability Rules and Mutually Exclusive Events	Lecture and Exercise Quiz	Review, complete exercise	10 20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Geometric Probability	Lecture and Exercise Quiz	Review, complete exercise	10 20
22 /	Independent Events and Conditional Probability	Exercise Quiz	Review, complete exercise DUE: Read “Mathematics” textbook section 12.4	10 20
23 /	Multiplication Rules of Conditional Probability	Lecture and Exercise Quiz	Review, complete exercise	10 20
24 /	Bayes’ Theorem	Lecture and Exercise Quiz	Review, complete exercise DUE: Read “Mathematics” textbook section 12.5	
25 /	Data Collection and Control Charts	Lecture and Exercise Quiz	Review, work on project	10
26 /	Normality, Autocorrelation, and Transformations	Lecture and Exercise	Review, work on project	10
27 /	Distribution Plot, Specification Limits, Defects	Lecture and Exercise	Review, work on project	10
28 /	Data Analysis Project Work Day, Causes and Effects	Exercise	Review, work on project	10
29 /	Data Analysis Presentation	Presentation	Review	10 20
30 /	Review for Final Exam	Exercise	Review, complete exercise	30
31 /	Final Exam			
32 /	Return Final Exam Score			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Physics A	1	611800	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH, Brandon ITO, Meguru	Hakusanroku C: 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Physics	Physics cultivates the ability to think systematically and logically about phenomena that are important to learning natural science and engineering. In this course, students will expand their knowledge of forces and the basics of understanding motion of objects in a two-dimensional space. Students will also learn the basics of mathematical analysis.
2	One Dimensional Motion	
3	Projectile Motion	
4	Equilibrium	
5	Newton's 2nd and 3rd Law	

Course Description and Expectations for Students (10.5pt)

In this course,

- Students must submit all exercises, quizzes and preview checks.
- Late submission may reduce a students' score on that assignment.
- All classes are conducted in English.
- Students have to take notes and submit them each month.

Advices for students:

- Fundamental Physics A is a course that forms the base of Fundamental Physics B and future physics course. Be sure to understand the content. If you have any questions, ask during classes, learning sessions, and/or speak with a teacher during posted office hours.
- This course consists of preparations (reading textbooks/ preview check), classes (exercises/class work/quiz), and reviews. Be sure to work on preparations because understanding during classes will improve greatly.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: "Physics" (HMH) ISBN 978-0-544-81773-9
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of science corresponding to junior high school
Fundamental skills of calculation

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to understand significant figures.
②	h,i	Students will be able to understand both one- and two-dimensional motion.
③	h,i	Students will be able to understand Newton's 2nd Law.
④	h,i	Students will be able to understand Newton's 3rd Law.
⑤	d,h,i	Students will be able to understand physical phenomena through experiments.
⑥	i	Students will be able to participate classes actively and review what you achieved.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	20	0	0	10	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	10	0	0	0	0	40
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	0	0	0	10	5	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	This course has one final exam, that covers all course content. The final exam is worth 40% of the total points in the course.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	After the completion of each content section there will be a short quiz to check understanding of the topic covered.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Each class students will receive an exercise containing problems relevant to the topics discussed in the course. Each course topic will have a preview check corresponding to the textbook covering that information. Students should complete this exercise in class unless otherwise stated by the instructor.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		In class students will take notes. At the beginning of each month, their notes will be checked for completeness and accuracy.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		Students will complete in class feedback notes at the end of each class throughout the quarter.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to correctly understand actual phenomena correctly through physical interpretations of class concepts. Students are able to calculate physical values for natural phenomena using formulae. Students are able to understand units and their dimensions for each physical value.	Students are able to understand phenomena. Students are able to solve questions correctly. Students are able to understand units of physical values.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Significant Figures	Lecture and exercise	Read syllabus and review lecture material Read textbook CH2 S1&2 and complete preview check Finishing exercise	10 20
2 /	One-Dimensional Motion-Horizontal ➢ Displacement, velocity, and acceleration ➢ Introduction of kinematic equation	Lecture and exercise Quiz	Finishing exercise Read textbook CH2 S3 and complete preview check	10 20
3 /	One-Dimensional Motion-Vertical ➢ Introduction to acceleration due to gravity	Lecture and exercise Quiz	Finishing exercise Read textbook CH3 S1&2 and complete preview check	10 20
4 /	Vectors ➢ Definition of vectors ➢ Graphical and mathematical combination of vectors ➢ Trigonometry	Lecture and exercise Quiz	Finishing exercise Read textbook CH3 S3 and complete preview check	10 20
5 /	Projectile Motion ➢ Component vectors ➢ Launch angle and trajectory	Lecture and exercise Quiz	Finishing exercise	10
6 /	Projectile Motion ➢ Review and practice projectile motion	Exercise	Finishing exercise	10
7 /	Projectile Motion ➢ Review and practice projectile motion	Exercise	Finishing exercise Read textbook CH3 S4 and complete preview check	10 20
8 /	Relative Velocity ➢ Defining relative velocity ➢ Motion review	Lecture and exercise Quiz	Finishing exercise Read textbook CH4 S1&2 and complete preview check	10 20
9 /	Forces and Newton's 1st Law ➢ Defining forces ➢ Free body diagrams ➢ Defining inertia ➢ Defining Newton's 1st Law	Lecture and exercise Quiz	Finishing exercise	10
10 /	Newton's 1st Law Demonstration	Demonstration	Finishing demonstration Read textbook CH4 S4 and complete preview check	10 20

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Action and Reaction Forces with Newton's 3rd Law ➢ Defining friction ➢ Defining weight and normal forces	Lecture and Exercise Quiz	Finishing exercise	10
12 /	Newton's 3rd Law Demonstration	Demonstration	Finishing demonstration Read textbook CH4 S3 and complete preview check	10 20
13 /	Newton's 2nd Law ➢ Defining net force and Newton's 2nd Law ➢ Simple machines ➢ Equilibrium	Lecture and exercise Quiz	Finishing exercise	10
14 /	Newton's 2nd Law ➢ Practice and review	Lecture and exercise	Finishing exercise	10
15 /	Review	Exercise Quiz	Finishing exercise	10
16 /	Final Exam			
17 /	Return Final Exam Scores			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Physics B	2	611900	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH, Brandon ITO, Meguru	Hakusanroku C: 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Work, Power, and Mechanical Energy	Physics cultivates the ability to think systematically and logically about phenomena that are important to learning natural science and engineering. In this course, students will be able to further develop their understanding of forces and motion learned in Fundamental Physics A through learning concepts and conducting experiments across different mediums. In addition, students can understand complicated motions with the concept of mechanical energy.
2	Momentum and Impulse	
3	Circular Motion	
4	Fluid Mechanics	
5	Conservation Laws	

Course Description and Expectations for Students (10.5pt)

In this course,

- Students must submit all exercises, quizzes and preview checks.
- Late submission may reduce a students' score on that assignment.
- All classes are conducted in English.
- Students have to take notes and submit them each month.

Advices for students:

- Fundamental Physics B is a course that forms the base for future physics courses. Be sure to understand the content. If you have any questions, ask during classes, learning sessions, and/or speak with a teacher during posted office hours.
- This course consists of preparations (reading textbooks/ preview check), classes (exercises/class work/quiz), and reviews. Be sure to work on preparations because understanding during classes will improve greatly.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: "Physics" (HMH) ISBN 978-0-544-81773-9

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of Fundamental Physics A

Fundamental skills of calculation

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to understand mechanical energy.
②	h,i	Students will be able to understand momentum and impulse.
③	h,i	Students will be able to understand circular and rotational motion.
④	h,i	Students will be able to understand the fundamentals of fluid mechanics
⑤	d,h,i	Students will be able to understand physical phenomena through experiments.
⑥	i	Students will be able to participate classes actively and review what you achieved.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	20	0	0	10	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	10	0	0	0	0	40
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	0	0	0	10	5	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	This course has one final exam, that covers all course content. The final exam is worth 40% of the total points in the course.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	After the completion of each content section there will be a short quiz to check understanding of the topic covered.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Each class students will receive an exercise containing problems relevant to the topics discussed in the course. Each course topic will have a preview check corresponding to the textbook covering that information. Students should complete this exercise in class unless otherwise instructed.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		In class students will take notes. At the beginning of each month, their notes will be checked for completeness and accuracy.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		Students will complete in class feedback notes at the end of each class throughout the quarter.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to correctly understand actual phenomena correctly through physical interpretations of class concepts. Students are able to calculate physical values for natural phenomena using formulae. Students are able to understand units and their dimensions for each physical value.	Students are able to understand phenomena. Students are able to solve questions correctly. Students are able to understand units of physical values.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Review of Fundamental Physics A	Lecture and exercise	Finishing exercise Read textbook CH5 S1&4 and complete preview check	10 20
2 /	Work and Power ➢ Defining work and power ➢ Understand direction of work	Lecture and exercise	Finishing exercise	10
3 /	Work and Power Demonstration	Experiment	Finishing demonstration Read textbook CH5 S2 and complete preview check	10 20
4 /	Kinetic Energy ➢ Defining kinetic energy ➢ Relationship between work and kinetic energy	Lecture and exercise Quiz	Finishing exercise	10
5 /	Potential Energy ➢ Defining gravitational potential energy ➢ Defining elastic potential energy	Lecture and exercise	Finishing exercise Read textbook CH5 S3 and complete preview check	10 20
6 /	Conservation of Mechanical Energy ➢ Defining conservation of energy with no work	Lecture and exercise Quiz	Finishing exercise	10
7 /	Conservation of Mechanical Energy ➢ Defining conservation of energy with work	Lecture and exercise	Finishing exercise	10
8 /	Conservation of Mechanical Energy ➢ Review and practice conservation of mechanical energy	Exercise	Finishing exercise Read textbook CH6 S1 and complete preview check	10 20
9 /	Momentum and Impulse ➢ Defining momentum and impulse ➢ Understanding the relationship between momentum and impulse	Lecture and exercise Quiz	Finishing exercise Read textbook CH6 S2&3 and complete preview check	10 20
10 /	Conservation of Momentum ➢ Defining conservation of momentum ➢ Understanding different types of collisions	Lecture and exercise Quiz	Finishing exercise	10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Conservation of Momentum ➢ Defining coefficient of restitution	Lecture and exercise	Finishing exercise	10
12 /	Conservation of Momentum ➢ Review and practice conservation of momentum	Lecture and Exercise	Finishing exercise	10
13 /	Conservation of Momentum Demonstration	Experiment	Finishing demonstration Read textbook CH7 S1 and complete preview check	10 20
14 /	Centripetal Acceleration and Centripetal Force ➢ Defining circular motion ➢ Defining centripetal acceleration ➢ Defining centripetal force	Lecture and exercise Quiz	Finishing exercise Read textbook pages 254-255	10
15 /	Rotational Kinematics ➢ Defining tangential velocity and acceleration ➢ Defining angular velocity and acceleration ➢ Understanding total acceleration	Lecture and exercise Quiz	Finishing exercise Read textbook CH7 S2 and complete preview check	10 20
16 /	Newton’s Law of Gravitation ➢ Defining Newton’s Law of Gravitation ➢ Understanding gravitational forces between two objects ➢ Calculating the acceleration due to gravity	Lecture and exercise Quiz	Finishing exercise Read textbook CH7 S2 and complete preview check	10 20
17 /	Torque ➢ Definition of torque ➢ Understanding sum of torques	Lecture and exercise Quiz	Finishing exercise	10 20
18 /	Torque ➢ Review and practice sum of torques	Lecture and exercise	Finishing exercise	10
19 /	Torque/Sum of Moments Practice and Demonstration	Experiment	Finishing Exercise Read textbook CH7 S4 and complete preview check	
20 /	Inertia and Center of Gravity ➢ Defining center of gravity ➢ Defining rotational inertia	Lecture and exercise	Finishing exercise Read textbook pages 258-259	10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Torque ➢ Defining Newton's 2nd Law with torques	Lecture and exercise Quiz	Finishing exercise	10 20
22 /	Torque ➢ Simple Machines	Lecture and exercise Quiz	Finishing exercise Read textbook pages 256-257	10 20
23 /	Rotational Dynamics ➢ Defining angular momentum ➢ Understanding conservation of angular momentum	Lecture and exercise	Finishing exercise	10
24 /	Rotational Dynamics ➢ Review and practice conservation of angular momentum	Lecture and exercise	Finishing exercise	10
25 /	Rotational Dynamics ➢ Defining rotational energy	Lecture and exercise	Finishing exercise Read textbook CH8 S1 and complete preview check	10 20
26 /	Fluid Properties and Buoyant Force ➢ Defining different fluid properties ➢ Defining buoyant force	Lecture and exercise Quiz	Finishing exercise Read textbook CH8 S2 and complete preview check	10 20
27 /	Fluid Pressure ➢ Definition of pressure ➢ Understand pressure at different depths	Lecture and exercise	Finishing exercise Read textbook CH8 S3, and pages 287-288, and complete preview check	10 20
28 /	Fluid Dynamics ➢ Defining conservation of mass in pipes ➢ Defining Bernoulli's Equation	Lecture and exercise Quiz	Finishing exercise	10
29 /	Fluid Dynamics ➢ Review and practice fluid dynamics	Lecture and exercise	Finishing exercise	10
30 /	Review	Exercise Quiz		10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	Final Exam			
32 /	Returning Final Exam Scores			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Chemistry A	2	612200	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	RASHED, Nagwa Fekri ITO, Meguru	Hakusanroku C 101.201		Friday 16:40~

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Matter	Learning Chemistry is essential for students of science and technology. In this course, students will learn about matter and energy from both the macro and micro viewpoints. Students will learn classifications and properties of matter. Then, they will learn about atomic structure and understand the mechanism of chemical bonding and interaction. They will be able to understand the characteristics of substances present in nature or industrially synthesized.
2	Physical vs. chemical change	
3	Atomic structure	
4	Periodic table	
5	Chemical bonding	

Course Description and Expectations for Students (10.5pt)

Fundamental Chemistry A will include lectures, solving worksheets, exercises, group activities, teacher demonstrations, and experiments.
For better course achievements, please consider the following:
- Students` safety comes first, so be always aware of your safety by following the Safety in the Chemistry Lab Rules.
- Check eSyllabus regularly for updates.
- Preview the specified sections in the textbook and other resources before attending class.
- Keep taking notes during the class time.
- Participate actively in discussions by asking questions and sharing your ideas with teachers and classmates.
- Keep all the materials, such as worksheets, experiment reports, and other assignments, in a folder to build your portfolio.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: SAVVAS Chemistry (SAVVAS) ISBN 978-1-323-21353-7
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

- Analysis and problem-solving
- Time management and organization
- Written and oral communication
- Monitoring/maintaining records and data
- Teamwork and research

No.	Program Objectives	Target Abilities for Students (9pt)
①	d, h, i	Students will be able to explore the importance and nature of chemistry as a core science.
②	d, h, i	Students will be able to analyze the nature of matter and its classifications.
③	d, h, i	Students will be able to access and find information displayed in the periodic table of elements.
④	d, h, i	Students will be able to relate the electron configuration and valence electrons with ion formation.
⑤	d, h, i	Students will be able to connect ion-formation to ionic bonds and ionic compounds.
⑥	d, h, i	Students will be able to explore the nature of covalent bonding and molecular shapes.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	20	15	0	0	20	15	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	4	0	0	5	4	38
	Ability to think, reason and create	15	10	4	0	0	5	4	38
	Collaboration and leadership	0	0	0	0	0	0	3	3
	Announcement / Expression / Communication	0	0	3	0	0	5	0	8
	Attitude and motivation for learning	0	0	4	0	0	5	4	13

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	-The final Exam is a cumulative exam for all taught chapters/topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	- A test on the lab equipment & safety rules will be held. - Chapter General Tests will be held for each chapter. - A test on the names and symbols of the first 36 elements in the periodic table will be held. - A lab practical on the flame test experiment will be held.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students are expected to do the following: − Include lesson title, student`s full name, and number at the top of each assignment page. − Submit self-checked answers to the assigned textbook and worksheet Qs on time. − Turn in any other online assignments on eSyllabus on time. (A 10 % deduction is applied in the case of delay in submitting an assignment per one class delay.)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	- The purpose of the portfolio is to provide evidence of student`s chemistry knowledge, learning development, process skills, and attitudes. - Portfolio evaluation is based on documentation of evidence of learning and journal entries that reflect students' understanding of their gained learning skills. (Refer to the Portfolio Grading Criteria on eSyllabus)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①	✓	Grading criteria of this section are as follows (Refer to the Note Taking Rubric on eSyllabus): 1- Clear and organized class notes that show all the covered topics in class. 2- Clear and organized lab reports of the performed experiments 3- Response in a proper manner to orally asked Qs by teachers or classmates 4- Safety procedures are followed at all times. 5- Cleanliness of laboratory and hygiene that lead to efficiency in all procedures and class time.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to: - answer and give explanations of the essential questions by applying the taught chemistry knowledge and concepts. - design and perform experiments safely to find solutions or propose an explanation. - apply their problem-solving skills to solve complex problems whose solutions require multiple steps. - analyze, evaluate or design a solution to a real-world problem by connecting their gained chemistry knowledge to daily lives and other subjects or fields of study	Students are able to: -answer the essential questions by applying the taught chemistry knowledge. - perform experiments safely, make observations, analyze given data, and use scientific thinking to draw conclusions - apply their problem-solving skills to solve problems whose solutions require multiple steps. - to connect their gained chemistry knowledge to daily lives and other subjects or fields of study.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	The Scope of Chemistry - Explain why the scope of chemistry is so vast. - Identify five traditional areas of study in chemistry.	- Lab Equipment & Safety Rules Test. - Lecture - Class Activity	- Prepare for Lab Equipment & Safety Rules Test - Answer Lesson 1.1 Book Qs.	30
2 /	Chemistry and You - Identify three general reasons to study chemistry. -Identify some outcomes of modern research in chemistry.	- Lecture - Class Activity	- Read and summarize Book p. 9 - Answer Lesson 1.2 Book Qs.	30
3 /	Thinking like a scientist - Identify three steps in the scientific method - Explain the role collaboration and communication play in science.	- Lecture - Quick Lab Bubbles	- Read Quick Lab “Bubbles” p. 17 - Answer Lesson 1.3 Book Qs. - Prepare for Chapter 1 General Test.	30
4 /	Properties of Matter - Explain why all samples of matter have the same intensive properties. - Identify the three states of matter. - Classify physical change.	- Chapter 1 General Test - Lecture - Sates of Matter Simulation	- Read and annotate Lesson 2.1 - Answer Lesson 2.1 Book Qs.	30
5 /	Mixtures - Explain how mixtures can be classified. - Explain how mixtures can be separated.	- Lecture - Separating mixtures experiments.	- Read and prepare for Quick Lab” Separating mixtures” p.39 - Read “Recycled Mixtures” p.52-53 - Answer Lesson 2.2 Book Qs.	30
6 /	Elements and Compounds - Explain the difference between an element and a compound. -Distinguish between a substance and a mixture.	- Lecture - Teacher Demo - Practice problems - Exercises	- Read and annotate Lesson 2.3 - Start memorizing symbols and names of the first 36 elements in the periodic table	30
7 /	Elements and Compounds - Explain how chemists use chemical symbols and chemical formulas.	- Pretest on Elements - Lecture - Exercises	- Memorize symbols and names of the first 36 elements in the periodic table - Answer lesson 2.3 Book Qs.	30
8 /	Chemical Reactions -Identify the four possible clues that a chemical change has taken place are. -Law of conservation of mass.	- Test on Elements - Lecture - Teacher Demo	- Read Lesson 2.4 - Answer Lesson 2.4 Book Qs.	30
9 /	Chemical Reactions - Observe chemical changes.	- Experiment - Small Scale Lab “1+2+3= Black” p.51.	- Read Small Scale Lab p.51 - Prepare for Chapter 2 General Test.	30
10 /	Defining the Atom - Explain how Democritus and John Dalton described atoms. - Identify instruments used to observe individual atoms.	- Chapter 2 General Test. -Quick Lab to describe what is in a closed box. - Lecture - Exercises	-What devices are used to see individual atoms in Japan? - Answer Lesson 4.1 Book Qs.	30

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Structure of the nuclear atom - Identify three types of subatomic particles. - Describe the structure of atoms according to the Rutherford model.	- "Rutherford`s Gold Foil Experiment" "Cathode Ray Tube" Kinetic Art	- Read Electron Microscopy p.110-111 - The Story of the Atom (Part 1)	30
12 /	Distinguishing Among Atoms - Explain what makes one element different from another. - Explain how isotopes of an element differ.	- Lecture - Practice problems - Exercises	- Review the names, symbols, and atomic numbers of the first 36 elements. - Answer Lesson 4.3 Book Qs.	30
13 /	Distinguishing Among Atoms - Calculate the atomic mass of an element. - Explain the meaning of atomic mass and the atomic mass unit.	- Test on Elements - Lecture - Practice problems - Exercises	- Search for the most abundant isotopes. -Prepare for Chapter 4 General Test	30
14 /	Revising the atomic Models - Describe what Bohr proposed in his model of the atom.	- Chapter 4 General Test - Lecture - Bohr Atomic Model - "Atomic orbitals" Kinetic Art.	- Search about Niels Bohr and Erwin Schrodinger	30
15 /	Revising the atomic Models - Describe what the quantum mechanical model determines about the electron configurations of elements. - Explain how sublevels of principle energy levels differ.	- Lecture - Group Activity	- Read Development of Atomic Models p. 133 - Answer Lesson 5.1 Book Qs	30
16 /	Electron arrangement in Atoms - List and apply three rules for writing the electron configurations of elements.	- Lecture - Exercises Complete the electron configuration of the first 36 elements.	- What is the difference between energy levels, sublevels, and atomic orbitals? - Read and prepare for Flame Test Lab	30
17 /	Atomic Emission Spectra - Explain what causes atomic emission spectra.	- Lecture - Flame test experiment	- Prepare for Flame Test Lab Practical - Prepare for Chapter 5 General Test and Lab Practical	30
18 /	Lab Practical - Demonstrate lab procedure and safety rules awareness.	- Chapter 5 General Test - Lab Practical	- Review flame colors of different metals. -Read "Light Emitting Diodes" p. 146	30
19 /	Organizing Elements - Describe how Mendeleev organized his periodic table. -Describe how the modern periodic table is organized. -Identify three broad classes of elements.	- Lecture - Exercises	- Search about J. W. Dobereiner and Dmitri Mendeleev. - Answer Lesson 6.1 Book Qs.	30
20 /	Classifying the Elements - List the types of information that can be displayed in the periodic table. -Classify elements based on electron configuration.	- Lecture - Practice problems - Exercises	- Review electron configuration in groups. - Answer Lesson 6.2 Book Qs.	30

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Periodic Trends - Describe trends among elements for atomic size. - Explain how ions form. -Describe periodic trends for first ionization energy, ionic size, and electronegativity.	- Lecture - Interpret Graphs - Exercises	- Read Elements of Life p. 183 - Answer Lesson 6.3 Book Qs.	30
22 /	Periodic Trends - Find information on the periodic table. - Use periodic trends to compare between atoms.	- Lecture - Group Game	- Review Chapter 6. - Prepare for Chapter 6 General Test.	30
23 /	Ions - Determine the number of valence electrons in an atom of a representative element. -Describe how cations and anions form. - Write electron configuration for various transition metals and their ion	- Chapter 6 General Test. - Lecture - Small Scale Lab: Electron Configuration of ions	- Read Small-Scale Lab p. 200 - Answer Lesson 7.1 Book Qs.	30
24 /	Ionic bonds and ionic compounds - Explain the electrical charge for an ionic compound. - Describe the properties of ionic compounds.	- Lecture - Practice Problems - Exercises	- Read Ionic Crystals p. 208 and Quick Lab p.207 - Answer Lesson 7.2 Book Qs	30
25 /	Bonding in metals - Model the valence electrons of metal atoms. -Describe the arrangement of atoms of a metal. - Explain the importance of alloys.	- Lecture - “Metals vs Ionic Compounds” Kinetic Art. - Exercises	- Review properties of metals - Answer Lesson 7.3 Book Qs. -Prepare for Chapter 7 General Test	30
26 /	Molecular Compounds - Identify the information a molecular formula provides. -Describe the representative units that define molecular compounds and ionic compounds	- Chapter 7 General Test - Lecture - Activity	- Review electron dot structure. - Answer Lesson 8.1 Book Qs.	30
27 /	The Nature of Covalent Bonding - Explain the result of electron sharing in covalent bonds. -Describe how coordinate covalent bond are different from other covalent bonds. - Identify some exception to the octet rule.	- Lecture - Quick Lab - Exercises	- Read Quick Lab p. 238 - Answer Lesson 8.2 Book Qs.	30
28 /	Bonding Theories - Describe the relationship between atomic and molecular orbitals. - Describe how VSEPR theory helps predict the shape of molecules. - Explain orbital hybridization in molecules	- Lecture - Class activity to make molecular models.	- Review atomic orbitals - Answer Lesson 8.3 Book Qs.	30
29 /	Polar Bonds and Molecules - Describe how the electronegativity values determine the charge distribution in a polar molecule. - Evaluate the strength of intermolecular attractions	- Lecture - Teacher Demo	- Review electronegativity - Answer Lesson 8.4 Book Qs. - Prepare for Chapter 8 General Test	30
30 /	General Review - Review Chapters 1,2, 4, 5, 6, 7 and 8	- Chapter 8 General Test - Evaluating and reflecting on the progress of own learning. - School Questionnaire	- Prepare for the Final Exam - Finalize the Portfolio	

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	Final Exam	- Evaluating the progress of own learning. - Submit the finalized portfolios.		
32 /	Returning Final Exam results	- Return graded exams and portfolios - Evaluating and reflecting on the progress of own learning.		

2024 Syllabus

Instructor with "＊" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Fundamental Chemistry B	2	612300	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	RASHED, Nagwa Fekri ITO, Meguru	Hakusanroku C 101.201		Friday 16:40-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Stoichiometry	In this course, students will learn about moles as a method of quantifying substances. They will be able to explain the quantitative relationships in various types of chemical reactions and understand the nature of chemical processes and their applications. Students will also be able to relate the state of matter to the kinetic theory. Students will be able to explain how aqueous systems form according to the unique properties of water.
2	Types of chemical reaction	
3	states of matter	
4	kinetic theory	
5	Aqueous systems	

Course Description and Expectations for Students (10.5pt)

Fundamental Chemistry A will include lectures, solving worksheets, exercises, group activities, teacher demonstrations, and experiments.
For better course achievements, please consider the following:
- Students` safety comes first, so be always aware of your safety by following the Safety in the Chemistry Lab Rules.
- Check eSyllabus regularly for updates.
- Preview the specified sections in the textbook and other resources before attending class.
- Keep taking notes during the class time.
- Participate actively in discussions by asking questions and sharing your ideas with teachers and classmates.
- Keep all the materials, such as worksheets, experiment reports, and other assignments, in a folder to build your portfolio.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: SAVVAS Chemistry (SAVVAS) ISBN 978-1-323-21353-7
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

- Analysis and problem-solving
- Time management and organization
- Written and oral communication
- Monitoring/maintaining records and data
- Teamwork and research

No.	Program Objectives	Target Abilities for Students (9pt)
①	d, h, i	Students will be able to determine the names and chemical formulas of ions and compounds.
②	d, h, i	Students will be able to use mole to convert among the count, mass, and volume of a specified substance.
③	d, h, i	Students will be able to describe chemical reactions and balance a chemical equation.
④	d, h, i	Students will be able to use mole ratios of balanced chemical equations to define chemical quantities.
⑤	d, h, i	Students will be able to apply kinetic theory to determine the characteristics of the states of a substance.
⑥	d, h, i	Students will be able to identify the unique properties of water and how aqueous systems form.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	20	15	0	0	20	15	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	4	0	0	5	4	38
	Ability to think, reason and create	15	10	4	0	0	5	4	38
	Collaboration and leadership	0	0	0	0	0	0	3	3
	Announcement / Expression / Communication	0	0	3	0	0	5	0	8
	Attitude and motivation for learning	0	0	4	0	0	5	4	13

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	-Final Exam is a cumulative exam for all taught chapters/topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	- Chapter General Tests will be held for each chapter.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students are expected to do the following: − Include lesson title, student`s full name, and number at the top of each assignment page. − Submit self-checked answers to the assigned textbook and worksheet Qs on time − Turn in any other online assignments on eSyllabus on time. (A 10 % deduction is applied in the case of delay in submitting an assignment per one class delay.)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	- The purpose of the portfolio is to provide evidence of student`s chemistry knowledge, learning development, process skills, and attitudes. - Portfolio evaluation is based on documentation of evidence of learning and journal entry that reflects students understanding of their gained learning skills. (Refer to the Portfolio Grading Criteria on eSyllabus)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①	✓	Grading criteria of this section are as follows: (Refer to the Note Taking Rubric on eSyllabus) 1- Clear and organized class notes that show all the covered topics in class. 2- Clear and organized lab reports of the performed experiments 3- Response in a proper manner to orally asked Qs by teachers or classmates 4- Safety procedures are followed in all times. 5- Cleanliness of laboratory and hygiene that lead to efficiency in all procedures and class time.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to: - answer and give explanations of the essential questions by applying the taught chemistry knowledge and concepts. - design and perform experiments safely to find solutions or propose an explanation. - apply their problem-solving skills to solve complex problems whose solutions require multiple steps. - analyze, evaluate, or design a solution to a real-world problem by connecting their gained chemistry knowledge to daily lives and other subjects or fields of study.	Students are able to: - answer the essential questions by applying the taught chemistry knowledge. - perform experiments safely, make observations, analyze given data, and use scientific thinking to draw conclusions - to apply their problem-solving skills to solve problems whose solutions require multiple steps. - connect their gained chemistry knowledge to daily lives and other subjects or fields of study.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Naming and Writing Formulas of Ionic Compounds - Apply the rules for naming and writing formulas of ions and ionic compounds.	- Lecture - Practice problems - Exercises	- Review Ions and ionic compounds. - Answer Lesson 9.1 and 9.2 Book Qs.	30
2 /	Naming and Writing Formulas for Molecular Compounds - Apply the rules for naming and writing formulas for binary molecular compounds.	- Lecture - Practice problems - Exercises	- Review Molecular compounds - Answer Lesson 9.3 Book Qs.	30
3 /	Naming and Writing Formulas for Acids and Bases - Determine the names ad formulas of an acid. - Determine the name and formula of a base.	- Lecture - Practice problems - Exercises	- Read Sports Nutrition Advisor p. 284 - Answer Lesson 9.4 Book Qs.	30
4 /	The Laws Governing How Compounds Form - Explain how the law of definite proportion is consistent with Dalton`s atomic theory. - General guidelines to write the name and formula of a chemical compound.	- Lecture -Practice problems -Exercises - Small-Scale Lab p. 295	- Read and prepare for Small-Scale Lab p. 295 - Answer Lesson 9.5 Book Qs. - Prepare for Chapter 9 General Test.	30
5 /	Using and Expressing Measurements - Write numbers in scientific notations - Evaluate accuracy and precision	- Chapter 9 General Test - Lecture - Practice Problems - Exercises	- Review Names and Chemical Formulas of Compounds. - Read and annotate the book p. 66 and answer Book Qs.	30
6 /	Using and Expressing Measurements - Explain why measurements must be reported to the correct number of significant figures.	- Lecture - Measuring Experiment - Practice problems - Exercises	- Read “Carbon Footprints” p. 83 - Answer Lesson 3.1 Book Qs.	30
7 /	Units of Measurement - Explain why metric units are easy to use - Identify the units of temperature scientists usually use. -Calculate the density of a substance.	- Lecture - Density stimulation - Practice problems - Exercises	- Review metric prefixes - Answer Lesson 3.2 Book Qs.	30
8 /	Solving Conversion problems - Explain what happens when a measurement is multiplied by a conversion factor. - Describe what kinds of problems can easily be solved using dimensional analysis.	- Lecture - Practice problems - Exercises	- What is a conversion factor? - Answer Lesson 3.2 Book and Workbook related Qs.	30
9 /	Solving Conversion problems - Explain what happens when a measurement is multiplied by a conversion factor. - Describe what kinds of problems can easily be solved using dimensional analysis.	- Lecture - Small-Scale Lab	- Read Small-Scale Lab p. 92 - Prepare for Chapter 3 General Test.	30
10 /	The Mole: A Measurement of Matter - Convert among the count, mass, and volume of matter. - Determine the molar mass of an element and of a compound.	- Chapter 3 General Test - Lecture - Practice problems - Exercises	- Read and Summarize lesson 10.1 - Answer Lesson 10.1 Book Qs.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Mole-Mass and Mole-Volume - Describe how to convert the mass of a substance to the number of moles of a substance and moles to mass. - Convert the volume of a gas at STP to the number of moles of the gas.	- Lecture - Practice problems - Exercises	- Read How Big is A Mole? P.316 - Answer Lesson 10.2 Book Qs.	30
12 /	Mole-Mass and Mole-Volume - Describe how to convert the mass of a substance to the number of moles of a substance and moles to mass. - Convert the volume of a gas at STP to the number of moles of the gas.	- Practice Problems - Exercises	- Review “The Mole”. - Answer Lesson 10.2 Book Qs.	30
13 /	Percent Composition and Chemical Formulas - Calculate the percent by mass of an element in a compound. - Calculate the empirical formula of a compound.	- Lecture - Practice problems - Exercises - Quick Lab	- Read Quick Lab p. 328 - Answer Lesson 10.3 Book Qs. - Prepare for Chapter 10 General Test	30
14 /	Describing Chemical Reactions - Describe how to write a skeleton equation. - Describe the steps for writing and balancing a chemical equation.	- Chapter 10 General Test - Lecture -Group Game to balance equations - Experiment.	- Read Kitchen Chemistry p. 355 - Answer Lesson 11.1 Book Qs.	30
15 /	Types of Chemical Reactions - Identify the five general types of reactions	- Lecture - Teacher Demo - Practice problems - Exercises	- Read “The History of Dynamite” p. 368 - Answer Lesson 11.2 Book Qs.	30
16 /	Reactions in Aqueous Solution - Describe the information found in a net ionic equation. - Predict the formation of a precipitate in a double-replacement reaction.	- Lecture - Practice problems - Exercises - Small- Scale Lab	-Read and prepare for Small-Scale Lab p. 374 -Answer Lesson 11.3 Book Qs. - Prepare for Chapter 11 General Test	30
17 /	The Arithmetic of equations - Describe how chemists use balanced chemical equations. - Describe the quantities you can use to interpret a balanced chemical equation.	- Chapter 11 General Test - Lecture - Practice problems - Exercises	- Prepare for Chapter 11 General Test - See Balancing Chemical Equations online. - Answer Lesson 12.1 Book Qs	30
18 /	Chemical Calculations - Explain how the mole ratios are used in chemical calculations. - Explain the general procedure for solving a stoichiometric problem.	- Lecture - Practice problems - Exercises	- Read Stoichiometric Safety p. 397 - Summarize Lesson 12.2	30
19 /	Limiting reagent and Percent Yield - Explain how the amount of product in a reaction is affected by an insufficient quantity of any of the reactants. - Explain what the percent yield of a reaction measures.	- Lecture - Practice problems - Exercises -Quick Lab	- Read Quick Lab p. 404 - Answer Lesson 12.3 Book Qs - Prepare for Chapter 12 General Test	30
20 /	The Nature of Gases - Describe the three assumptions of kinetic theory as it applies to gases. - Interpret gas pressure in terms of kinetic theory.	- Chapter 12 General Test - Lecture -Virtual Lab - Practice problems -Exercises	- Make a summary about the coldest place in the universe - Answer Lesson 13.1 Book Qs.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	The Nature of Liquids - Identify the factors that determine the physical properties of a liquid. - Define conditions under which a dynamic equilibrium can exist between a liquid and its vapor.	- Lecture - Interpret graphs - Virtual lab	- Read Lesson 13.2 - Answer Lesson 13.2 Book Qs.	30
22 /	The Nature of Solids - Describe how the structure and properties of solids are related. - Identify the factors that determine the shape of a crystal.	- Lecture - Small-Scale Lab	- Read and prepare for Small-Scale Lab p. 435 - Answer Lesson 13.3 Book Qs.	30
23 /	Change of States - Identify the conditions necessary for sublimation. - Determine how the conditions at which phases are in equilibrium are represented on a phase diagram.	- Quick Lab - Lecture - Interpret graphs	- Read “Plasma Waste Converter” - Answer Lesson 13.4 Book Qs. - Prepare for Chapter 13 General Test.	30
24 /	Ideal Gases - Calculate the amount of a contained gas when the pressure, volume, and temperature are specified. - Define the conditions when real gases are most likely to differ from ideal gases.	- Chapter 13 General Test - Lecture - Virtual Lab - Practice problems - Exercises	- Review “Gas Laws” p. 450~463 - Answer Lesson 14.3 Book Qs.	30
25 /	Gases: mixtures and Movements - Relate the total pressure of a mixture of gases to the partial pressures of the component gases. - Explain how the molar mass of a gas affects the rate at which gas diffuses and effuses.	- Lecture - Virtual Lab - Practice problems - Exercises	- Read Natural Gas Vehicle p. 476-477 - Answer Lesson 14.4 Book Qs.	30
26 /	Gases: mixtures and Movements - Relate the total pressure of a mixture of gases to the partial pressures of the component gases. - Explain how the molar mass of a gas affects the rate at which gas diffuses and effuses.	- Small- Scale Lab - Exercises	- Read Small-Scale Lab p. 475 - Prepare for Chapter 14 General Test	30
27 /	Water and Its Properties - Identify the factor that causes the high surface tension, low vapor pressure, and high boiling point of water. - Describe the structure of ice.	- Chapter 14 General Test - Lecture - Quick Lab	- Read Quick Lab p. 491 - Answer Lesson 15.1 Book Qs.	30
28 /	Homogeneous Aqueous Systems - Identify the types of substances that dissolve most readily in water. - Why all ionic compounds are electrolytes. - Explain why hydrates easily lose and gain water.	- A Small-Scale Lab - Lecture -Group Activity	- Read reverse Osmosis Distillation p. 502-503 - Answer Lesson 15.2 Book Qs.	30
29 /	Heterogeneous Aqueous Systems - Distinguish between a suspension and a solution. - identify how to distinguish a colloid from a suspension and a solution.	- Lecture - Teacher Demo “Tyndall Effect”. - Small-Scale Lab	- Read Small-Scale Lab p. 507 - Answer Lesson 15.3 Book Qs. - Prepare for Chapter 15 General Test.	30
30 /	General Review - Review Chapters 9, 10, 11,12, 13, 14 and 15	- Chapter 15 General Test - Evaluating and reflecting on the progress of own learning. - School Questionnaire	- Prepare for the Final Exam - Finalize the Portfolio	

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	Final Exam	- Evaluating the progress of own learning. - Submit Fundamental Chemistry B portfolios.		
32 /	Returning Final Exam results	- Return graded exams and portfolios - Evaluating and reflecting on the progress of own learning.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IA	1	612600	First	Exercises / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAKIMOTO, Akihiro / CADZOW, Philip	Hakusanroku C 101 Gym		Friday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Running	The student will increase their stamina and energy for everyday life.
2	Bouldering	The student will develop an understanding of net game tactics through playing net games like badminton and volleyball.
3	Badminton	
4	Volleyball	The student will develop volleyball and badminton sport specific skills.
5	Teamwork	The student will grow their teamwork skills through working in cooperation with other students.

Course Description and Expectations for Students (10.5pt)

Introduction:
Weeks 1 to 2 will be used to explain the facilities and how to exercise safely. Pass mark is over 50%
Training:
Weeks 3 to 8 will be running outside.
Weeks 8 to 11 will be leg training with use of bodyweight exercises and machine training.
Weeks 12 to 15 will again be running. When it rains, we will use the bouldering room to train.
Sports:
Weeks 3 to 8 will be set around learning net game tactics through net games like soft volleyball, indiaca, and small volleyball games.
Weeks 9 to 15 will be spent learning net games through the lens of badminton.
The expectation is for students to be on time for class in the correct uniform, and fully participate in the activities of class to the best of their abilities.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

School sports uniform, Indoor sports shoes, Outdoor sports shoes, Water bottle

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No prior skills or knowledge are required for this course.

No.	Program Objectives	Target Abilities for Students (9pt)
①	D	Students will learn how to train their body correctly for a healthy life.
②	F	Students will be able to learn from failure and develop fortitude.
③	I	Students will develop confidence in their abilities and work with a sincere heart.
④	I	Students will learn the value of enjoying sports and the lifelong benefits of exercise.
⑤	C	Students will be able to support each other in learning new skills.
⑥	B	Students will become accustomed to working for the good of others.

Evaluation Criteria

	Evaluation Method / Criteria and Ratio	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	0	18	0	0	40	42	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	18	0	0	0	0	0	18
	Ability to think, reason and create	0	0	0	0	0	42	0	42
	Collaboration and leadership	0	0	0	0	13	0	0	13
	Announcement / Expression / Communication	0	0	0	0	13	0	0	13
	Attitude and motivation for learning	0	0	0	0	14	0	0	14

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✔	**Quiz on warming up: 7pt**
	②	✔	**Quiz on stretching and heart rate: 11pt**
	③	✔	
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		**Sports:**
	②	✔	**Tactics and Team play 13pt.**
	③		Complete the small net game each class. 1pt per game.
	④	✔	**Badminton/Volleyball Skill: 13pt.**
	⑤	✔	Work on badminton/Volleyball skills each class. 1pt per training session
	⑥	✔	**Cleaning and setting up: 14pt.**
			1 point each class for cleaning and setting up the equipment.
Portfolios	①	✔	**Warm up: 13pt.**
	②		**Training: 29pt.**
	③	✔	Each class the students will be put into groups to complete exercise assignments. For example:
	④		In a group of 3 students, collectively run 10 laps in the 20 minutes given.
	⑤		0pt = Attempted but less than 50%. 1pt = More than 50% completed. 2pt = 100% Completed.
	⑥		The first test run will be worth 3 points.
Others	①		Not having correct PE clothes will result in not being able to participate in the lesson and hence missing out on points.
	②		
	③		Reasonable absences will be appointed makeup work for points missed.
	④	✔	
	⑤		Injuries will be given alternate work for the points they would otherwise miss.
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Arrives on time and in the right uniform. Cleans or sets up for class to a high standard (properly shakes the mops and nets are tied nicely. Great effort during training, going above the requirements for the day. Completes the small learning games with high concentration and looks for opportunities to encourage other students and their learning.	Arriving on time, in the correct uniform. Cleans or sets up for class to a good standard. Enough effort in training to complete the day's challenge with minimal disturbance to others. Completes the small learning games to the best of their effort.

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Syllabus explanation Net setup explanation Weights room explanation	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
2 /	Continued introduction Running course introduction Bouldering room introduction Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
3 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
4 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
5 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
6 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
7 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
8 /	Running/Bouldering challenge Net game tactics through volleyball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
9 /	Leg training challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
10 /	Leg training challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Leg training challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
12 /	Running/Bouldering challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
13 /	Running/Bouldering challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
14 /	Running/Bouldering challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
15 /	Running/Bouldering challenge Net game tactics through Badminton like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IB	1	612700	Second	Exercises / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	TAKIMOTO, Akihiro / CADZOW, Philip	Hakusanroku C 101 Gym		Friday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Training	The student will increase their strength and energy for everyday life.
2	Bouldering	The student will develop an understanding of invasion game tactics through playing invasion games like basketball, netball, and handball.
3	Basketball	The student will develop basketball sport specific skills.
4	Netball	The student will grow their teamwork skills through working in cooperation with other students.
5	Teamwork	

Course Description and Expectations for Students (10.5pt)

In the beginning of each class, students will clean the gym and warm up. Pass mark is over 50%

Training:

Every 3rd week will be bouldering. Except for the last week where team sports will be played outside.
Weeks 1,2,4, and 5 will be machine training for endurance.
Weeks 7,8, and 10 will be leg training with use of isometric bodyweight exercises.
Weeks 11, 13, and 14 will be machine training for strength.

Sports:

Weeks 1 to 5 will be learning invasion game tactics through invasion games like netball and working on basketball skills.
Weeks 6 to 10 will be learning invasion game tactics through invasion games like basketball and working on basketball skills.
Weeks 11 to 14 will be learning invasion game tactics through invasion games like handball and working on basketball skills.
The expectation is for students to be on time for class in the correct uniform, and fully participate in the activities of class to the best of their abilities.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

School sports uniform, Indoor sports shoes, Outdoor sports shoes, Water bottle

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No prior skills or knowledge are required for this course.

No.	Program Objectives	Target Abilities for Students (9pt)
①	D	Students will learn how to train their body correctly for a healthy life.
②	F	Students will be able to learn from failure and develop fortitude.
③	I	Students will develop confidence in their abilities and work with a sincere heart.
④	I	Students will learn the value of enjoying sports and the lifelong benefits of exercise.
⑤	C	Students will be able to support each other in learning new skills.
⑥	B	Students will become accustomed to working for the good of others.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	0	45	45	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	10	0	0	0	0	0	10
	Ability to think, reason and create	0	0	0	0	15	0	0	15
	Collaboration and leadership	0	0	0	15	15	0	0	30
	Announcement / Expression / Communication	0	0	0	15	0	0	0	15
	Attitude and motivation for learning	0	0	0	15	15	0	0	30

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✔	**Quiz on machine training for endurance: 5pt**
	②	✔	**Quiz on machine training for strength: 5pt**
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		**Sports:**
	②	✔	**Tactics and Team play 15pt.**
	③		Complete the small invasion game each class. 1pt per game.
	④		**Basketball Skill: 15pt.**
	⑤	✔	Work on Basketball skills. 1pt per training session
	⑥	✔	**Cleaning and setting up: 15pt.**
			1 point each class for cleaning and setting up the equipment.
Portfolios	①	✔	**Warm up: 15pt**
	②		**Training: 30pt.**
	③	✔	keep a log of each class training session on the worksheet:
	④	✔	Each class the students will be put into groups to complete exercise assignments. For example:
	⑤		In a group of 2 students, collectively complete 6 circuits of machine training.
	⑥		0pt = Attempted but less than 50%. 1pt = More than 50% completed. 2pt = 100% Completed.
			The first testing will be worth 2 points.
Others	①		Not having correct PE clothes will result in not being able to participate in the lesson and hence missing out on points.
	②		
	③		Reasonable absences will be appointed makeup work for time missed.
	④	✔	
	⑤		Injuries will be given alternate work for the points they would otherwise miss.
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Arrives on time and in the right uniform. Cleans or sets up for class to a high standard (properly shakes the mops, and balls air pressure is checked. Great effort during training, going above the requirements for the day. Completes the small learning games with high concentration and looks for opportunities to encourage other students and their learning.	Arriving on time, in the correct uniform. Cleans or sets up for class to a good standard. Enough effort in training to complete the day's challenge with minimal disturbance to others. Completes the small learning games to the best of their effort.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Syllabus explanation Machine training lecture on stamina training	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
2 /	Stamina machine training Basketball skill training Netball like games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
3 /	Bouldering challenge Basketball skill training Netball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
4 /	Stamina machine training Basketball skill training Netball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
5 /	Stamina machine training Basketball skill training Netball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
6 /	Bouldering challenge Basketball skill training Basketball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
7 /	Isometric bodyweight training Basketball skill training Basketball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
8 /	Isometric bodyweight training Basketball skill training Basketball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
9 /	Bouldering challenge Basketball skill training Basketball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
10 /	Isometric bodyweight training Basketball skill training Basketball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Strength machine training Basketball skill training Handball like games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
12 /	Bouldering challenge Basketball skill training Handball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
13 /	Strength machine training Basketball skill training Handball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
14 /	Strength machine training Basketball skill training Handball like games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
15 /	Team sport outside.	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 必修	ビジュアルアーツⅠ	1	613200	後学期	実験・実習／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
1年	小髙有普	白山麓C： 101.201		月～金16:30-17:30

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	図形表現の基本的な技法	最善で価値あるモノやコトの提案に導くためには、「感じる力」「見つける力」「伝える力」「深く考える力」などが必要だが、これらの能力を発揮するための一助として、図形表現の基本的技法を習得する。授業では、フリーハンドで自ら発想したアイデアや観察した対象の形、機能、構造などをドローイングし、誰にでも認識できるレベルとする。また、発想などをドローイング表現することや、伝達の道具とすることで、アイデアの検証を容易にし、改善や発展などに必要な思考力や発想力の向上を促すなどのスパイラル型思考過程を体験する。創造的なスキルとして認識し、継続的に使用していくことを目指す。
2	図形表現の多様性	
3	図によるコミュニケーション	
4	思考力や発想力の向上	
5	スパイラル型思考過程の体験	

授業の概要および学習上の助言

授業は以下のプロセスで実施されます。
1）ドローイングの意義と位置付け
2）ドローイングの基本知識と技法の学習
3）ドローイングの実践と図を用いた情報伝達
4）スパイラル型思考の演習

注意
・すべての課題は提出期限に間に合うように必ず提出すること。課題の提出が遅れると減点します。
・この授業を合格するには、学生はすべての課題を提出する必要があります。
・この授業では定期試験を実施しません。
・１０分程度の予習課題を毎週授業前までにしておくこと。
・授業内でできなかった課題は次週の授業前までに完成しておくこと。

【教科書および参考書・リザーブドブック】
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：アイデア・ドローイング第２版(共立出版)ISBN978-4-320-07177-3
IDEA DRAWING HOW TO DRAW(TANAKA&SHOBUNDO GRAPHIC ART CO.,LTD)ISBN978-4-924861-35-0

履修に必要な予備知識や技能

本授業はリザーブドブック「アイデア・ドローイング第２版」に沿って実施される。このため、予め熟読しておくことが好ましい。
また、授業の進行は積み上げになっているので、各回ごとに不明点などが残らないように心がける。
理解不足と感じたらリザーブドブックやオフィスアワーを利用し復習を行う。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	f,g	図形表現の基本的な技法を理解できる。
②	f,g	同じモノをさまざまな距離、方向、思考などの観点から観察し、それらを的確に表すドローイングをすることができる。
③	f,g	誰もが認識できるようなドローイングをすることで、第三者との意見交換や意思疎通ができる。
④	f,g	第三者の多様な意見を取り入れて、自分自身の発想を正確に図形で表現する事ができる。
⑤	f,g,d	創造活動の中でのドローイングの重要性を認識し、図を用いる情報の伝達が的確にできる。
⑥	i	自らの作業を客観的に振り返る姿勢を示すことができる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	0	30	35	30	5	0	100
総合力指標	知識を取り込む力	0	0	10	10	0	0	0	20
	思考・推論・創造する力	0	0	0	10	5	0	0	15
	コラボレーションとリーダーシップ	0	0	0	5	0	0	0	5
	発表・表現・伝達する力	0	0	20	10	25	0	0	55
	学習に取組む姿勢・意欲	0	0	0	0	0	5	0	5

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①		
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①		1週目から7週目までと9,10週目：描画の基本的技法の修得度を評価します。（30%）
	②		
	③	レ	
	④	レ	
	⑤		
	⑥		
成果発表 （口頭・実技）	①		対象：12～15週目の課題(最終日に学生の発表を通じてルーブリック評価を行う) (35%)
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
作品	①	レ	８,11週目：ドローイングによるアイデア表現（30%）
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
ポートフォリオ	①		創造的活動に対する自己評価の書き込み（5%） 対象：15週の学習レポート
	②		
	③		
	④		
	⑤		
	⑥	レ	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
①知識と技法：知識を完全に理解し、これに基づいたシンプルな線を用い、フリーハンドで図が描ける。 ②応用力：複雑な形、働きなどを判りやすい視点からドローイング表現ができる ③伝達力：誰にでも同じ内容が伝わるレベルで「モノ」や「コト」をドローイングで表現できる。 ④総合力：自分の発想内容や第三者の発想などもシンプルなドローイングで表現し、これを利用して発展させる事ができる。	①知識と技法：知識を理解し、これに基づいたフリーハンド図が描ける ②応用力：簡単な形、単純な働きなどをドローイング表現ができる。 ③伝達力：知識や興味がある第三者に、同じ内容が伝わるレベルで「モノ」や「コト」をドローイングで表現できる。 ④総合力：自分や第三者の発想、アドバイスをドローイングで表現し、補足的な表現を加えることで描きあらわし、他者との相互理解のためのツールとして利用する事ができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	・フリーハンドドローイングの発想の視覚化と提示での有効性についての理解。 ・コミュニケーションを成立する描画条件について基本的な表現訓練 ・表現法基礎①　透視図法を理解する	・ガイダンス ・講義 ・描画演習	予習：指示に従い準備 復習：課題の完成と振り返り	20
2 ／	・表現法基礎② 観測者との位置関係を考える	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
3 ／	・表現法基礎③ 視点の変化でも変わらない図形の規則性を学ぶ	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
4 ／	・表現法基礎④ 立方体を理解し、形の比を記憶する 立方体を利用して等しい量を持つ他の立体を描く	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
5 ／	・表現法基礎⑤ 立方体を利用して等しい量を持つ他の立体を描く	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
6 ／	・表現法基礎⑥ 立体の配置条件や見えない形を補助する表現としての陰影を学ぶ	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
7 ／	・表現法基礎⑦ 立体の配置条件や見えない形を補助する表現としての陰影を学ぶ２	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
8 ／	・総合力ラーニング（レポート） 一般的製品の形を学ぶ 立体の複合からできる様々な形状を理解し、自分で複合する形を発想し描画する	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
9 ／	・表現法基礎⑧ 人と現象・反応の表現方法について 簡易的人体の描画法を学ぶ	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
10 ／	・表現法基礎⑨ 人とモノ・状態の表現方法について 簡易的人体の描画法を学ぶ２	・講義 ・描画演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	40

授業明細表

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	総合力ラーニング１ ・図を活用したレポートを作る	・講義 ・演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	20
12 ／	総合力ラーニング２ ・問題解決策を考える ・アイデアを伝えるための情報図の検討	・グループ活動	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	20
13 ／	総合力ラーニング２ ・アイデアを伝えるための情報図を作成する	・講義 ・演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	30
14 ／	総合力ラーニング３ ・アイデアについて倫理的にプラスとマイナスの影響を考える。（改善案を考える） ・アイデアを伝える情報図の作成（改善）	・講義 ・演習	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させる	100
15 ／	・最終プレゼンテーション ・振り返り学習	・発表 ・振り返り活動	予習：次の授業用準備課題を仕上げる 復習：当日の授業課題を完成させることと、振り返り	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design IA	2	710100	First	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH, Brandon / KODAKA, Arihiro HAYASHI, Michihiro	Hakusanroku C 101.201		Mon – Fri 4:30 - 5:30 pm

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Project-based learning	In this class, the students will work on project-based learning activities for finding problems and creating solutions in their daily life and environment. The student groups will practice the design process and methods in their projects. They will also learn basic knowledge and methods to make quick prototypes of their ideas as well. Through making ideas into shapes and sharing them with others, the students will enjoy value creation.
2	Finding problems	
3	Creating solutions	
4	Quick prototypes	
5	Value Creation	

Course Description and Expectations for Students (10.5pt)

The class consists of the following phases:
Phase 1: Understanding the design process.
Phase 2: Introduction to prototyping tools and methods.
Phase 3: Individual and group projects for problem solving activities: Research, Define, Ideate, Create, and Evaluate.

Advice on taking this class
- Students must submit all assignments to pass this course.
- Act with appropriate manners and behaviors as important aspects of conducting research.
- Submit all the assignments on time. There will be penalty points if you are late to submit your assignments.
- Understand that this project is not a sequential process, rather it is a process of going back and forth by trials and errors.
- Participate in class work autonomously. Don't afraid to challenge yourself and feel free to ask questions.
- There will be no exam in this class.
- The class is conducted 2 sessions in a row.
- Check E-syllabus often and download all files needed for the lessons.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g	Students will be able to understand the design process to create products and services.
②	a, g	Students will be able to work based on the design thinking mindsets.
③	a, f	Students will be able to make tangible prototyping forms and convey their main ideas using them.
④	d, e, g	Students will be able to generate and improve ideas through multiple iteration processes.
⑤	h	Students will be able to collect and analyze the information, and they can define a problem.
⑥	I	Students will be able to show their attitude to reflect on their own work objectively.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	15	30	50	5	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	5	5	15	1	0	26
	Ability to think, reason and create	0	0	5	5	15	1	0	26
	Collaboration and leadership	0	0	2	10	5	1	0	18
	Announcement / Expression / Communication	0	0	2	10	15	1	0	28
	Attitude and motivation for learning	0	0	1	0	0	1	0	2

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	レ	Reports will be submitted in written forms including sketches, spreadsheets, and any other styles of forms about the projects. The format of the report will be announced by the instructors depending on the activities.
	②	レ	
	③		
	④		
	⑤	レ	
	⑥	レ	
Presentations	①		Students will give oral progress and final reports about their projects. The format of the presentations will be announced by instructors, such as slides, posters, videos, and/or any other styles. Teachers will grade the presentations on content and presentation etiquette. Rubric will be provided.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
Works	①	レ	The works include your practice use of digital fabrication and tools in the workshop. The format of works can be the physical prototypes of solutions, its iteration process, and other styles of visual aids of your project. The format will be announced by the instructors.
	②		
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
Portfolios	①	レ	Students will have self-reflection in handout or E-syllabus weekly basis.
	②		
	③		
	④		
	⑤		
	⑥	レ	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Student can define an appropriate problem statement logically based on their research data. - Student can propose creative, feasible, and appropriate solutions. - Students can make meaningful and effective prototypes of their solutions. - Students can effectively communicate their thoughts and design ideas well.	- Student can define a problem statement based on their research data. - Student can propose appropriate solutions. - Students can make tangible prototypes of their solutions. - Students can explain their thoughts and design ideas adequately.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	- Class Guidance - Introduction to CDIO contexts and Design Thinking mindsets and process	Lecture and group work	Prepare as instructed	
2 /		Lecture and group work	Finish class assignments and reflection	20
3 /	Rapid Prototyping Tools 1 - Understand the basic functions of design software Create digital data for digital fabrication tools: Laser Cutting	Lecture and Practice	Prepare as instructed	15
4 /	Understand the basic use of machine tools - Understand the effectiveness and risk of machining	Lecture and Practice	Finish class assignments and reflection	20
5 /	Rapid Prototyping Tools 2 - Understanding the basic usage and safety information for 3D printing	Lecture and individual practice	Prepare as instructed	15
6 /	Project Theme Introduction Understanding users and defining problems	Lecture and individual practice	Finish class assignments and reflection	20
7 /	Idea Generation and sketching 1 - Communication drawing skills and practice - Creating multiple solution sketches	Lecture and individual practice	Prepare as instructed	15
8 /		Lecture and individual practice	Finish class assignments and reflection	20
9 /	Idea Generation and sketching 2 - Communication drawing skills and practice - Creating multiple solution sketches	Lecture and individual practice	Prepare as instructed	15
10 /		Lecture and individual practice	Finish class assignments and reflection	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Synthesizing idea sketching - Introduction to informational drawing - Informational Idea sketch for finalizing the solution and materials	Lecture and Presentation	Prepare as instructed	15
12 /		Lecture and Presentation	Finish class assignments and reflection	20
13 /	Idea Presentation and Peer Review session - Improve the idea for quick prototyping - Introduction of BoM sheet	Lecture and Individual practice	Prepare as instructed	15
14 /		Lecture and Individual practice	Finish class assignments and reflection	20
15 /	Idea development and Prototyping Plan review 1 - Dealing with material property and usages - Quick Prototyping	Lecture and Individual practice	Prepare as instructed	15
16 /		Lecture and Individual practice	Finish class assignments and reflection	20
17 /	Idea development and Prototyping Plan review 2 - Improve the idea for quick prototyping - Quick Prototyping	Lecture and Individual practice	Prepare as instructed	15
18 /		Lecture and Individual practice	Finish class assignments and reflection	20
19 /	Prototyping and iteration 1	Lecture and Individual practice	Prepare as instructed	15
20 /		Lecture and Individual practice	Finish class assignments and reflection	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Prototyping and iteration 2 Final Presentation Preparation Poster layout and information	Lecture and Individual practice	Prepare as instructed	15
22 /		Lecture and Individual practice	Finish class assignments and reflection	20
23 /	Prototyping and iteration 4 Poster Presentation Preparation	Lecture and Individual practice	Prepare as instructed	15
24 /		Lecture and Individual practice	Finish class assignments and reflection	20
25 /	Prototyping and iteration 5 Poster Presentation Preparation	Lecture and Individual practice	Prepare as instructed	15
26 /		Lecture and Individual practice	Finish class assignments and reflection	20
27 /	Prototyping and iteration 6 Poster Presentation Preparation	Lecture and Individual practice	Prepare as instructed	15
28 /		Lecture and Individual practice	Finish class assignments and reflection	20
29 /	Final Presentation and Reflection: - Present how their refined ideas and prototypes solve a problem	Presentation	Prepare for the presentation	60
30 /	- Self-reflection and realizing the outcome of the activity from the portfolio entries	Self-reflection	Finish class assignments and reflection	

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design IB	2	710200	Second	Experiment / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	WOHLFARTH Brandon / MATSUSHITA, Omihito / HAYASHI, Michihiro	Hakusanroku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Engineering Design Process	In this class students will experience the engineering design process by understanding users to create solutions to solve various problems: research users, generate ideas, develop specifications, have design reviews, make prototypes, and evaluate them based on requirement. Through this process, students will also learn project management methods, understand~~ing~~ quality, cost, and meeting delivery time while managing robot control to fit the user's criteria.
2	Understanding users	
3	Project management	
4	Problem finding and solving	
5	Robot control	

Course Description and Expectations for Students (10.5pt)

Proper production process needs to be practiced to realize ideas. In this class Students will go through the design process and learn project management methods while making robots to fit their user's criteria. After understanding quality, cost, and meeting delivery time, students will experience the engineering design process by generating ideas, developing specifications, give design reviews, making prototypes, and evaluating them based on requirements. Through this process, students will have an overview of programming for robot controls.
Advice on taking this class
- Act with appropriate manners and behaviors as important aspects of conducting research.
- All the assignments must be submitted to pass the class. There will be penalty points if you are late to submit your assignments. There will be no exam in this class.
- Understand that this project is not a sequential process, rather it is a process of going back and forth by trials and errors.
- Participate in class work autonomously. Don't afraid to challenge yourself and feel free to ask questions.
- The class is conducted 2 sessions in a row.
- Check e-syllabus often and download all files needed for the lessons.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Courses: Engineering Design Ⅰ A

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,h,i	The students will be able to understand the importance of user research in the design process.
②	a,h,i	The students will be able to make basic program to control robots.
③	c,g,h	The students will be able to make project plan based on quality, cost, and delivery time.
④	b,c.d	The students will be able to implement a production project with team using proper management methods.
⑤	b,g,h	The students will be able to create ideas realizing required spec. and practice design review with team.
⑥	a,h,i	The students will be able to show their attitude to reflect on their own work objectively.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	15	15	65	5	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	3	4	15	1	0	23
	Ability to think, reason and create	0	0	3	4	15	1	0	23
	Collaboration and leadership	0	0	3	3	15	1	0	22
	Announcement / Expression / Communication	0	0	3	4	10	1	0	18
	Attitude and motivation for learning	0	0	3	0	10	1	0	14

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Report will include individual work report and personal reflection on own learning experience about project progress, contribution, and outcomes. The format of the report will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	This grade is for the final presentation from students to teacher. Teacher will grade on presentation content, presentation Etiquette, Rubric will be provided as a group and individually. Also, the final gallery walk or poster presentation format will be included in the grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①	✓	The format of works can be physical prototypes of solutions, concept diagrams, sketches, and other styles of visual aids and writing forms. The format will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①	✓	Portfolios will include final personal reflection on own project management and contribution, and learning experience through the project. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Finishing work during class time, helping other team members or other teams in progressing work. Sharing new insights and knowledge to class and teachers. Having a good line of communication with facilitators and teachers.	The class is evaluated by the class participation, assignments, presentations, and portfolio. You need to submit all the assignment. There will be penalty points if you are late submitting your assignments. The class is conducted 2 sessions in a row.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Class guidance	Understand the technology applied into life and society	Prepare as instructed	15
2 /	Robot controls 1	Introduction to Lego EV3	Preparation based on previous class instructions	20
3 /	Robot controls 2	Understand functions of sensors and control loops using motors	Finish class assignments and reflection	15
4 /	Robot controls 3	Make an original robot using basic functions and sensors.	Finish class assignments and reflection	20
5 /	Project Management Introduction & Team Organization	Practice on project management method and mindset	Read and review handouts	30
6 /	Project kick off Reviewing Gantt chart for user research and ideation Interview & Observation Preparation 1	Lecture on project charter, user research and practice	Prepare as instructed	20
7 /	Research and Ideas generation - Interview & observation preparation 2 - Understanding the problems and user needs - Idea generation & sketching	Conducting user research interview and observation	Prepare as instructed Project plan due	60
8 /		Brainstorming the design ideas	Finish class assignments and reflection	30
9 /	Sharing findings (problems and user needs, initial ideas) Idea sketching & Quick Prototyping 1	Brainstorming the design ideas and making rough prototypes	Finish class assignments and reflection	15
10 /	Quick Prototyping 2 Completing idea sketches for user feedback	Brainstorming the design ideas and making rough prototypes	Prepare as instructed	15

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	User Feedback - Feedback: Final sketch & idea iteration	Conducting User evaluation	Prepare as instructed	15
12 /		Conducting User evaluation	Finish class assignments and reflection	30
13 /	Design Review and prototype planning - Requirement - Materials Reviewing Gantt chart for Prototyping	Lecture on prototyping planning	Prepare as instructed	15
14 /		Lecture on prototyping planning	Finish class assignments and reflection	15
15 /	Finalizing ideas and Prototype 1 - Completing Gantt chart for prototyping	Group work for prototyping planning	Prepare as instructed	15
16 /		Group work for prototyping planning	Finish class assignments and reflection	30
17 /	Prototype 2	Continuation on making the prototype realistic and useable.	Prepare as instructed	15
18 /		Continuation on making the prototype realistic and useable.	Finish class assignments and reflection	30
19 /	Prototype 3 and User Evaluation	Continuation on making the prototype realistic and useable. Conducting User Evaluation	Prepare as instructed	15
20 /		Continuation on making the prototype realistic and useable. Conducting User Evaluation	Finish class assignments and reflection	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Sharing status report Prototype iteration 1	Evaluate prototypes based on user evaluation.	Prepare as instructed	15
22 /		Decide on necessary prototype iteration plans.	Finish class assignments and reflection	30
23 /	Prototype iteration 2 and user feedback	Make a product based on the result of design review and get user feedback.	Prepare as instructed	20
24 /		Make a product based on the result of design review and get user feedback	Finish class assignments and reflection	30
25 /	Prototype iteration 3 and user feedback Prepare for the final presentation	Make a product based on the result of design review and get user feedback	Prepare as instructed	20
26 /		Make a product based on the result of design review and get user feedback	Finish class assignments and reflection	30
27 /	Prototype iteration 4 and user feedback Prepare for the final presentation	Make a product based on the result of design review and get user feedback	Prepare as instructed	20
28 /		Finishing and construction of final product.	Finish class assignments and reflection	30
29 /	Project completion and Final presentation	Group presentation	Prepare the final presentation materials	30
30 /	Self-Reflection	Realizing your outcome of the activity from the portfolio entries	Reflecting on self-growth, any different routes or options you would have taken if opportunity is provided.	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Computer Skills IA	1	710900	First	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	ITO, Meguru KODAKA, Arihiro	Hakusanroku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	3D modeling	In modern days, computers are used everywhere and computational thinking is an essential for engineers in all fields. In this course, students will be able to learn the basic ability to use computer. In particular, students will cultivate the ability to create documents and creative skills using computer, practically.
2	Office	
3	Statistics	
4	Image processing	
5		

Course Description and Expectations for Students (10.5pt)

In this course,

- There is no final examination.
- All assignments must be submitted.
- Late assignments may reduce students' score.

Advice for students:

- Involve in class activity. Do not be shy to ask some questions.
- Take care to stick to the submission date of all assignments.

Write what you achieved in this class in the portfolio for your own record and review.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books: Excel で易しく学ぶ統計解析（東京図書）ISBN 978-4489023170

完全独習統計学入門（ダイヤモンド社）ISBN 978-4478820094

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Fundamental operation of computer (left click, right click, double click, drag and drop, shutdown, start up, etc.)
Fundamental usage of internet browser (search, URL, etc.)

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	Students will be able to learn how to use computers.
②	h,i	Students will be able to use Microsoft Office and analyze data statistically.
③	f,h,i	Students will be able to create 3D model using Autodesk Fusion 360.
④	f,g,h,i	Students will be able to create and edit images using Adobe Photoshop.
⑤	f,g,h,i	Students will be able to draw and create illustration using Adobe Illustrator.
⑥	i	Students will be able to review what you achieved using Portfolio system.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	0	80	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	40	0	0	40
	Ability to think, reason and create	0	0	0	0	40	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	10	0	10
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	To check the learned skills in class, students have to submit assignment for each topic. They are evaluated from the viewpoint of being able to execute correctly software operation. 40% each is allocated for the first half of assignments (fusion360 and office) and the second half (photoshop and illustrator). **Students must submit all assignments. If they do not submit even one of them, the grading of works will be 0.**
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①	✓	Portfolio evaluation is based on documentation of evidence of e-syllabus entry that reflects students understanding of their gained learning skills.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to understand of capabilities of the computer and respond appropriately to the computer troubles. Students are able to use Word, Excel, PowerPoint, Photoshop, Illustrator, and Fusion 360 depending on the situation very well. Students are able to create an impressive work in other classes and projects.	Students are able to use and manage computer. Students are able to use Word, Excel, PowerPoint, Photoshop, Illustrator, and Fusion 360 depending on the situation. Students are able to apply the learned skills to other classes and projects.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	・Guidance ・PC set-up ・Fusion 360 Introduction of Fusion 360	Explanation of this course Lecture and practice of Fusion 360	Finishing set-up of PC Preparation based on instruction	15
2 /	・Fusion 360 Understanding basic operation of Fusion 360	Lecture and practice of Fusion 360	Finishing assignments of this class Preparation based on instruction	25
3 /	・PowerPoint Creating complex models	Lecture and practice of PowerPoint	Finishing assignments of this class Preparation based on instruction	25
4 /	・Excel Reviewing how to use Excel	Lecture and practice of Excel	Finishing assignments of this class	25
5 /	・Excel Understanding basic statistic from data	Lecture and practice of Excel	Finishing assignments of this class	25
6 /	・Excel Understanding normal distribution from data	Lecture and practice of Excel	Finishing assignments of this class Preparation based on instruction	25
7 /	・Word Reviewing how to use Word	Lecture and practice of Word	Finishing assignments of this class Preparation based on instruction	25
8 /	・Photoshop Understanding image repairing and resolution	Lecture and practice of Photoshop	Finishing assignments of this class Preparation based on instruction	25
9 /	・Photoshop Understanding composition of images	Lecture and practice of Photoshop	Finishing assignments of this class Preparation based on instruction	25
10 /	・Photoshop Understanding composition of images	Lecture and practice of Photoshop	Finishing assignments of this class Preparation based on instruction	25

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	・Illustrator Understanding Bezier curve	Lecture and practice of Illustrator	Finishing assignments of this class Preparation based on instruction	25
12 /	・Illustrator Understanding basic operation to create figures	Lecture and practice of Illustrator	Finishing assignments of this class Preparation based on instruction	25
13 /	・Illustrator Understanding image trace	Lecture and practice of Illustrator	Finishing assignments of this class Preparation based on instruction	25
14 /	・Illustrator Create printing data	Lecture and practice of Illustrator	Finishing assignments of this class Preparation based on instruction	25
15 /	・Illustrator Creating printing data and review this class	Lecture and practice of Illustrator	Finishing assignments of this class	25

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Computer Skills IB	1	711000	Second	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	ITO, Meguru FUJISAWA, Takeshi	Hakusanroku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Video editing	In modern days, computers are used everywhere and computational thinking is an essential for engineers in all fields. Students must be aware of how to use the Internet to their advantages for communicating their works to the world. In particular, students will learn about how to use software to express themselves and the technology related to the Internet.
2	HTML	
3	CSS	
4	Web Design	
5		

Course Description and Expectations for Students (10.5pt)

In this course,
- There is no final examination.
- All assignments must be submitted.
- Late assignments may reduce students' score.

Advice for students:
- Involve in class activity. Do not be shy to ask some questions.
- Take care to stick to the submission date of all assignments.

Write what you achieved in this class in the portfolio for your own record and review.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Fundamental operation of computer (left click, right click, double click, drag and drop, shutdown, start up, etc.)
Fundamental usage of internet browser (search, URL, etc.)
Fundamental usage of basic function of a PC (touch typing, file system, software installation, etc.)

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	Students will be able to learn how to use video editing software.
②	e,f,i	Students will be able to create their own videos.
③	h,i	Students will be able to understand technologies related to the Internet.
④	h,i	Students will be able to understand HTML & CSS.
⑤	f,h,i	Students will be able to edit web pages.
⑥	i	Students will be able to review what you achieved using Portfolio system.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	0	80	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	40	0	0	40
	Ability to think, reason and create	0	0	0	0	40	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	10	0	10
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	∠	To check the learned skills in class, students have to submit assignment for each topic. They are evaluated from the viewpoint of being able to execute correctly software operation for the first half (Premiere). 40% each is allocated for the first half of assignments (Premiere) and the second half (HTML). **Students must submit all assignments. If they do not submit even one of them, the grading of works will be 0.**
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Portfolios	①	∠	Portfolio evaluation is based on documentation of evidence of e-syllabus entry that reflects students understanding of their gained learning skills.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to understand of capabilities of the software and learn from somewhere other than the teacher. Students are able to understand about HTML tags and CSS selectors, and customize all elements. Students are able to create an impressive work in other classes and projects.	Students are able to use software appropriately. Students are able to understand about HTML tags and CSS selectors. Students are able to apply the learned skills to other classes and projects.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	・Guidance ・Premiere Pro Basic operation of Premiere Pro	Explanation of this course Lecture and practice of Premiere Pro	Finishing assignments of this class	15
2 /	・Premiere Pro Fundamental method of editing videos	Lecture and practice of Premiere Pro	Finishing assignments of this class	15
3 /	・Premiere Pro Adding text and caption	Lecture and practice of Premiere Pro	Finishing assignments of this class	15
4 /	・Premiere Pro Chroma key composition	Lecture and practice of Premiere Pro	Finishing assignments of this class	15
5 /	・Premiere Pro Camera work and storyboard	Lecture and practice of Premiere Pro	Finishing assignments of this class	15
6 /	・Premiere Pro Creating own video	Project	Continuing the work	15
7 /	・Premiere Pro Creating own video	Project	Finishing assignments of this class	30
8 /	・Basic of Hyper Text Markup Language (HTML) Understanding tags for representing content and creating hyperlinks Understanding Lists and how to embed Media	Lecture and practice	Finishing assignments of this class	25
9 /	・Basic of Hyper Text Markup Language (HTML) Understanding data with tables.	Lecture and practice	Finishing assignments of this class	25
10 /	・Hyper Text Markup Language (HTML) Creating webpage with embedded movies.	Project	Finishing assignments of this class	25

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	・Cascading Style Sheets (CSS) Unser standing the Basic of CSS Understanding the Box Model	Lecture and practice	Finishing assignments of this class	25
12 /	・Cascading Style Sheets (CSS) Understanding Position Content	Lecture and practice	Finishing assignments of this class	25
13 /	・Cascading Style Sheets (CSS) Understanding Styling Text	Project	Finishing assignments of this class	25
14 /	・Portfolio Webpage Students will create a personal portfolio webpage.	Project	Doing assignments of this class	25
15 /	・Assessment Review and check the understanding of what is learned so far	Self Study	Finishing assignments of this class	25

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept.S Specialized Required	Academic Foundation	1	711300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	MATSUSHITA, Omihito	HC 101-201		

Course Objectives

	Keywords	Learning Objectives of the Course
1	Leadership competency	Students will learn the basics of attitudes, mindsets, and thinking skills necessary for learning and team projects. While recognizing the importance of competency and own characteristics, students will learn leadership competency and practice logical thinking, argument, and debate skills on the theme of technical and engineering issues, while applying this knowledge and considering the ethical points of views.
2	Logical thinking	
3	Argument	
4	Debate	
5	Ethical points of views	

Course Description and Expectations for Students

Students who will become global innovators in the future must acquire the ability to identify the essence of problems and propose and implement appropriate solutions. In order to do so, they need to understand and utilize their own characteristics and strength, acquire logical thinking and argumentation skills, and be able to express their own opinions on how to solve problems. In this class, students will learn logical thinking skill and argument skill by using technical and political issues in the field of environment and energy as topics. After learning these skills, students will acquire practical skills through debate sessions conducted at the end of the semester.

Advice on taking this course:
•Have laptops or notebooks ready before class starts.
•Check e-syllabus often and download all files needed for lessons.
•Submit assignments on time.
•Be sure to study and prepare sufficiently for debate.
•Enter a portfolio for self-records and review.
•Feel free to ask questions during office hour.

【Required Materials (textbooks, reference books, reserved books)】
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites)

No.	Program Objectives	Target Abilities for Students
①	c.d.e.f.i.	Students will be able to understand the essence of leadership competency.
②	a.g.i.	Students will be able to gather necessary information through reference research.
③	f.i.	Students will be able to understand the logical thinking method.
④	c.f.i.	Students will be able to understand the argument method.
⑤	c.d.f.	Students will be able to understand and practice in the debate method.
⑥	i	Students will be able to record their portfolio and look back on themselves.

Evaluation Criteria

Evaluation Method / Total Percentage		Exams	Quizzes	Reports	Presentations	Works	Portfolio	Other	Total
Total Percentage		0	0	30	60	0	10	0	100
Comprehensive Strength Criterion	Ability to capture knowledge	0	0	10	0	0	0	0	10
	Ability to think, reason and create	0	0	10	30	0	0	0	40
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	0	0	20	0	0	0	20
	Attitude and motivation for learning	0	0	10	0	0	10	0	20

※ The numerical breakdown shown by Comprehensive Strength Criterion is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Report	①	✓	Evaluate performance of the report
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentation	①		Evaluate argument presentation and each student's role in the debate
	②		
	③		
	④		
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolio	①		Evaluate the reflection portfolio.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
Students are able to demonstrate the leadership competency in various group projects. Students are able to understand the technical and social background of the energy field relating electric power system. Students are able to gather necessary information through reference research. Students are able to demonstrate the logical thinking and argument skill. Students are able to understand and practice in the debate method. Students are able to sufficiently record their portfolio and look back on themselves.	Students are able to understand the key points of leadership competency. Students understand the key issues in the energy field relating electric power system. Students are able to gather some information through reference research. Students are able to understand the logical thinking and argument method. Students are able to understand and practice in the debate method. Students are able to record their portfolio and look back on themselves.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Understanding the purpose and expectation of learning - Sharing the purpose of studies - Group discussion manners	Lecture and group work	Students report on the reflections on their learning expectation.	15
2 /	Understanding competency - Understanding the own strength and weakness	Lecture and group work	Students report on the reflections on their competency.	15
3 /	Leadership Practice 1 - Practice group interaction and negotiation.	Lecture and group work	Students report on the reflections on their leadership experience.	15
4 /	Leadership Practice 2 - Understanding the key roles of leaders and teams. - Understanding the roles of effective feedback.	Lecture and group work	Students report on the reflections on their key leadership competency.	15
5 /	Leadership Practice 3 - Reflect on own leadership competency though group interaction.	Lecture and group work	Students report on the reflections on their leadership practice.	15
6 /	Basic method of logical thinking and argument Through exercises, student can isolate problems, discover essence, and consider solutions.	Learning and exercises on finding the essence of the problem and considering solutions to it.	Students report on the reflections on their logical thinking experience.	20
7 /	Argument skills on engineering topic 1 Students learn about the topic and then improve their logical thinking skills by arguing their opinions on the relating subject.	An engineering related topic will be lectured, and students will write a report on their opinions on each topic.	Preparation for the argument on the energy-related subject	30
8 /		The week after the lecture, students will present their own opinions. They will recognize the validity and vulnerability of their opinions and develop logical argumentation skills.	Students report on the reflections on their argument.	10
9 /	Argument skills on engineering topic 2 Students learn about the topic and then improve their logical thinking skills by arguing their opinions on the relating subject.	An engineering related topic will be lectured, and students will write a report on their opinions on each topic.	Preparation for the argument on the energy-related subject	30
10 /		The week after the lecture, students will present their own opinions. They will recognize the validity and vulnerability of their opinions and develop logical argumentation skills.	Students report on the reflections on their argument.	10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Debate 1 Basic method of the debate		Students prepare for the debate subject.	30
12 /	Debate 2 Prepare for the debate round #1	Introducing basic debate method	Students prepare for the debate subject.	30
13 /	Debate 3 Debate round #1	Research for the topic of energy field and prepare for argument and counter argument of round #1	Students prepare for the debate subject.	30
14 /	Debate 4 Prepare for the debate round #2	Research for the topic of energy field and prepare for argument and counter argument of round #2	Students prepare for the debate subject.	30
15 /	Debate 5 Debate round #2 Final Reflection		Students report on the reflections on their learning experience through the activities.	10

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of Innovation	1	712600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
1	MATSUSHITA, Omihito TSUDA, Akihiro MEBUSAYA, Rattiya	Hakusanroku C 101-201		

Course Objectives

	Keywords	Learning Objectives of the Course
1	innovation	Students will be able to identify the key factors of innovation: different customer needs, sources of value, competitors, and effective team work. Students will learn how to improve value proposition by iteration.
2	Customer needs	
3	Sources of value	
4	Competitors	
5	Value proposition	

Course Description and Expectations for Students

In this class, students will learn the important factors of innovation bases on the five disciplines of innovation introduced by SRI International. Students will practice its elevator pitch framework and idea iteration process called value creation forum by team.

Advice on taking this course:
•Have laptops or notebooks ready before class starts.
•Check e-syllabus often and download all files needed for lessons.
•Submit assignments on time.
•Enter a portfolio for self-records and review.
•Feel free to ask questions during office hour.

【Required Materials (textbooks, reference books, reserved books)】
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites)

Engineering Design IA: idea creation, value proposition
Academic Foundation: leadership competency, group discussion

No.	Program Objectives	Target Abilities for Students
①	a, g	Students will understand innovation and creativity
②	a, g	Students will obtain innovation mindset and skills
③	c, d, e	Students will be able to improve their ideas efficiently working in teams.
④	d, e, f	Students will be able to provide effective feedback.
⑤	f, g	Students will utilize all the knowledge in the class to convey their innovative ideas to others
⑥	a, b, i	Students will be able to record and creatively create portfolio and assess their own learning.

Evaluation Criteria

	Evaluation Method / Total Percentage	Exams	Quizzes	Reports	Presentations	Works	Portfolio	Other	Total
	Total Percentage	0	0	30	25	30	10	5	100
Comprehensive Strength Criterion	Ability to capture knowledge	0	0	10	5	10	2	0	27
	Ability to think, reason and create	0	0	10	5	10	2	0	27
	Collaboration and leadership	0	0	0	10	0	2	2	14
	Announcement / Expression / Communication	0	0	10	5	10	2	0	27
	Attitude and motivation for learning	0	0	0	0	0	2	3	5

※ The numerical breakdown shown by Comprehensive Strength Criterion is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Report	①	∠	Reports mainly include individual and group activity worksheet and reflection. The format of the report will be announced by the instructors.
	②	∠	
	③	∠	
	④		
	⑤		
	⑥		
Presentation	①	∠	Students will give oral presentation about their projects. The format of the presentations will be announced by instructors, Teachers will grade on presentation contents and presentation Etiquette, Rubric will be provided as a group and individually.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Works	①	∠	Works mainly include individual activity worksheet and presentation materials. The format of the works will be announced by the instructors.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Portfolio	①	∠	Portfolios will include creativity, progress, and final personal reflection reports on own learning experience through the semester. The format of the portfolio will be announced by the instructors.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Others	①		Team contribution assessment and self-assessment.
	②		
	③	∠	
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
Students are able to explain about innovation. Students are able to explain about the different customer types and values. Students are able to explain about different types of competitors. Students are able to improve their ideas based on the value proposition mechanism.	Students are able to understand about innovation. Students are able to understand about the different customer types and values. Students are able to understand about different types of competitors. Students are able to understand the value proposition mechanism.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1	Class Guidance Left – Right Brain (Creative VS Logic), Why do we need innovation? Create team	- Lecture - Personality check - Group - VDO clips (to inspire)	- 1st Assignment: from video clip reflect on the thought of disruption and innovation and why do we need innovation, and inspiration. - 1st Reflection: important of disruption and the important of team work dynamic - Team member and Creative Team Name	20
2	Emphasized mindset: Be creative, be observant, be passionate, and be confident Creative – Invention - Innovation Innovators and its Characteristics Portfolio Introduction Theme/topic consideration Exercise for creativity	- Case/Success story - Lecture and discussion - Creative exercises - Introduce portfolio	- 2nd Reflect: From role model you pick in the assignment and the characteristics, which one that you think you want to improve in you, why, and how? - 2nd Assignment: role model/characteristic that you would like to be.	20
3	Innovation Mindset (overall), Innovation (what is, types, level, and process) Idea Generation (from creativity) Observation skills Idea Generation	- Lecture and discussion - Exercises	- 3rd Reflect: observation and creativities - Group project: general 1 topic/ hypothesis	20
4 /	Emphasized mindset: Human Center = the key is People (their problems/needs) From Idea generation to understand the "NEED" Introduction to SRI, NABC Needs (After NEED introduction, decide users for interview/observe, etc) Stakeholders / Target Group / Users (Find information online, who, what, where, etc. before we find stakeholders) 1min pitch and vote (need/problem)	- Lecture and discussion - Workshop - 1-minute pitch, vote	- 4th reflect: Human Center design: People/Target group and Need	20
5 /	Emphasized mindset: Learn – Unlearn – Relearn, Bias toward action Empathy: interview/observe, etc.	- Lecture and discussion - Workshop	- 3rd Individual Assignment: Interview and observe data - 5th reflect: what you have learned from the interview and observation: Learn-Unlearn-Relearn	20
6	Emphasized mindset: Learn – Unlearn – Relearn, Ambiguity, Craft toward clarity Validation and data analysis Empathy Map/Customer Journey Finetune problem/need based on data Create "How might we" statement	- Lecture and discussion - Workshop	- 6th Reflect: ambiguity and uncertainty - 4th Individual Assignment: Empathy map/Persona (from the interview) - Group: Combined Empathy map/Persona (from the interview)	20

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
7	Emphasized mindset: Human value, Craft toward clarity, and iterate Need/Problem – Users Validation Value Proposition: What is "Value"? (Unique Value and Value Proposition) Solution brainstorming based on HMW and creating value proposition	- Lecture and discussion - Workshop	- Group Work: Complete Users—Needs—VP - 7th Reflect: Human value and from uncertainty craft toward clarity and iterate	20
8 /	Emphasized mindset: Be creative, confidence, passionate, and positive, Radical collaboration Approach: Finding Solution Idea Sketch Emphasized mindset: Show don't tell, be optimism, embrace the experiment, make it, fail fast learn fast, learn from the failure Validation, Feedback, and Iteration Prototyping	- Lecture and discussion Workshop	- 5th Assignment individual solution (Sketch Design and 1 minute pitch in class) - Group Work: group solution - 8th Reflect: being creative and passionate	20
9	Emphasized mindset: Be optimism, fail fast learn fast, learn from the failure What we can do with the feedback? Iteration plan	- Lecture and discussion - Case Study - Workshop	- Group Work: prototype, and what and how to validate (measurement), Compete "Approach" - 9th Reflect: fail fast learn fast and the important of prototype and validation	20
10	Benefit: Competitors: Basic IP: Copyright, and Patent Emphasized mindset: Make it, be mindful of process Pitching and Story Telling	- Lecture and discussion - Workshop	- 6th Individual Assignment: individual validated data from group prototype. - Group: combine product/service validation, finetune products/services/prototype - 10th reflect: what so you learn how do you feel about your solution after the validation/feedback	20
11 /	Pitching Practice and feedback (Group):	- Pitching	- Group: complete benefit, complete "Benefit" - 11th Reflect: how you can tell that your solution is innovation or not?	20
12 /	Pitch iteration	- Pitching	- Group: Competitors and Alternative, complete Competitors/Alternatives - 12th reflect	20
13 /	Pitch iteration	- Ptiching	- 7th Individual assignment: individual pitching practice (in class) - Group: Pitching script, flow, deck/poster/etc. - 13th Reflect: Storytelling	20
14 /	Pitching Day/Exhibition day	- Pitching/Exhibition	- Final present	20
15 /	Conclusion (What's next), Final Reflection and Portfolio Students Assessment (team assessment)	- Final reflection - Team member assessment	- Team member assessment - Final reflection - Portfolio - Conclusion	20

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	国語表現IIA	1	620500	前学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	黒田　譜美	白山麓C： 101.201		水曜　15:00-16:00

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	書く	文章やデータなどさまざまな情報を適切に判断し取捨選択する力や、筋道立てて考え、効果的に表現する力を伸ばす。課題文型・データ型小論文が書けるようになるために、課題文やデータを正確に読み取り、要約する力を鍛える。また、適切な根拠や具体例を示しながら自分の意見を展開する方法を学び、プレゼンテーション、ディベートなど話す技術へ応用できるようにする。さらに、聞き手の同意や共感を得るために、音声表現だけでなく、資料やスライド、身ぶりや表情といった非音声表現も積極的に工夫する実践的な態度を養う。
2	話す	
3	聴く	
4	読む	
5	小論文	

授業の概要および学習上の助言

■授業概要

本科目は、国語表現IA、ＩBの続きを行う。

具体的な範囲は下記の通り。

小論文Ⅱ

プレゼンテーションの方法

話し合いの方法

■学習上の助言

・課題は必ず提出すること。

・毎時の小テストは地道に取り組むこと。

・辞書は必ず用意すること。また、辞書を常に引くように心がけ、知らない言葉を確認し、着実に身につけること。

・さまざまなジャンルの本を読むよう心がけること。

【教科書および参考書・リザーブドブック】

教科書：『国語表現』教育出版 ISBN：978-4-316-20349-2、『国語の常識 plus』明治書院 ISBN：978-4-469-625-23405-7

参考書：

ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

国語表現IA、IBを履修し、日本語の読解力や文章表現力を身につけている。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e,f	常用漢字の読み書きの習得に積極的に努める。
②	e,f	課題文を正確に読み取り、的確に要約することができる。
③	e,f	グラフや図表など視覚資料から傾向・特徴を読み取り、論点を把握することができる。
④	e,f	適切な根拠や具体例を示しながら自分の意見を展開することができる。
⑤	e,f	読み手からの助言を踏まえ、自分の文章の特長や課題を捉え直すことができる。
⑥	e,f	音声表現・非音声表現を工夫して、効果的なプレゼンテーションを行うことができる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	30	50	20	0	0	0	100
総合力指標	知識を取り込む力	0	30	0	0	0	0	0	30
	思考・推論・創造する力	0	0	30	0	0	0	0	30
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	20	20	0	0	0	40
	学習に取組む姿勢・意欲	0	0	0	0	0	0	0	0

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	漢字小テストは6回実施し、計30点とする。
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①		レポートは3種類課し、計50点とする。 ①要約：10点 ②課題文型小論文：30点 ③データ型小論文：10点
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
成果発表 （口頭・実技）	①		成果発表（口頭・実技）は2種類課し、各10点計20点とする。 ①プレゼンテーション ②話し合い（フィッシュボウル）
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
漢字を常に正確に読み書きできる。 文章の論点や主張を正確に把握して、常に的確に要約できる。 グラフや図表など視覚資料から、論点を的確に把握することができる。 適切な根拠や具体例を示しながら自分の意見を展開することができる。 推敲の意義を理解し、習慣的に推敲を重ねることができる。 音声表現・非音声表現を工夫して、効果的なプレゼンテーションができる。	漢字の習得に積極的に努めることができる。 文章の論点や主張を読み取り、要約できる。 グラフや図表など視覚資料から、論点を把握することができる。 根拠や具体例を示しながら自分の意見を展開することができる。 読み手からの助言を踏まえ、推敲することができる。 音声表現・非音声表現を工夫して、プレゼンテーションができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	■科目ガイダンス ・科目の目的、内容、評価方法について理解する。 小論文 ・小論文の目的や書式について理解する。	講義と質疑 プリント配布	復習：配布プリントを再読し、学習教育目標や行動目標を確認する。	30
2 ／	小論文 ・要約の方法について理解する。	小テスト① レポート①提出 講義と質疑 プリント配布	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
3 ／	小論文 ・接続詞について理解する。	小テスト② 小テスト①返却 レポート①返却 講義と質疑 プリント配布	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
4 ／	小論文 ・課題文型小論文に取り組む。 ・論点を把握し、課題文を要約する。 ・論点に対して賛成か反対か決める。	小テスト③ 小テスト②返却 講義と質疑 プリント配布 グループワーク	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
5 ／	小論文 ・自分の意見の根拠を挙げる。 ・反論を想定して展開を工夫する。 ・構成ノートを書く。	小テスト④ 小テスト③返却 レポート②仮提出 講義と質疑 プリント配布	予習：構成ノートを作成する。 復習：教科書・ノートを見直す。	30
6 ／	小論文 ・添削内容を確認し、構成や展開を修正する。 ・清書する。	小テスト④返却 レポート②返却・再提出 講義と質疑 プリント配布	予習：レポート②（小論文）を推敲する。 復習：レポート②（小論文）を推敲する。	30
7 ／	小論文 ・他学生の小論文を読み、相互評価する。	レポート②返却 講義と質疑 プリント配布	予習：レポート②を仕上げる。 復習：相互評価を見直す。	30
8 ／	小論文 ・データを読み取り、論点を把握する。 ・構成ノートを書く。	レポート③仮提出 講義と質疑 プリント配布	予習：データ型小論文について調べる。 復習：教科書・ノートを見直す。	30
9 ／	小論文 ・添削内容を確認し、構成や展開を修正する。 ・清書する。	レポート③返却・再提出 講義と質疑 プリント配布	予習：構成ノートを仕上げる。 復習：レポート③（小論文）を仕上げる。	30
10 ／	小論文 ・他学生の小論文を読み、相互評価する。	レポート③返却 講義と質疑 プリント配布	予習：教科書・ノートを見直す。 復習：相互評価を見直す。	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	プレゼンテーションの方法 ・プレゼンテーションの表現要素および表現技術について理解する。 ・プレゼンテーションの構成について理解する。	小テスト⑤ 講義と質疑 プリント配布 グループワーク	予習：プレゼンテーションについて調べる。 復習：教科書・ノートを見直す。	30
12 ／	プレゼンテーションの方法 ・プレゼンテーションのスライドを作成し、発表練習をする。	小テスト⑥ 小テスト⑤返却 講義と質疑 プリント配布 グループワーク	予習：構成ノートを作成する。 復習：スライドを仕上げる。	30
13 ／	プレゼンテーションの方法 ・プレゼンテーションを行い、質疑応答する。 ・相互評価する。	実技①プレゼンテーション 小テスト⑥返却 プリント配布 グループワーク	予習：発表の練習をする。 復習：相互評価を見直す。	30
14 ／	話し合いの方法 ・フィッシュボウルのルールを理解する。 ・話し合いたいテーマを出し合う。 ・自分の立場を決め、根拠となる情報を整理する。	講義と質疑 プリント配布 グループワーク	予習：建設的な話し合いの方法について調べる。 復習：根拠となる情報を集める。	30
15 ／	話し合いの方法 ・話し合いを行い、相互評価する。	実技②話し合い プリント配布 グループワーク アンケート実施	予習：話し合いの準備をする。 復習：相互評価を見直す。	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Expression II A	1	620600	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAYLOR, James	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Writing	Students will come to prepared to speak and write in English. To progress in the class students will complete and submit tasks on time. Peer review and feedback are important parts of the writing process, so students will use every opportunity to communicate with classmates, respect others' ideas and opinions. It is crucial to ask classmates or the teacher for help when necessary.
2	Essays	
3	Genres	
4	Journal	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

Students will consider what they learnt in English Expression I A and I B and will expand on their knowledge by continuing to learn about and practice the writing process, including planning and peer review, to write essays. Through the writing process and targeted language activities, students will gain the skills to describe their ideas logically in written English. Short writing tasks will be completed on a weekly basis for homework to give students further opportunities to practice expressing themselves. Students will learn and practice the skills and language to achieve high scores on academic writing tasks.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in written English.
Desire to improve writing skills through responding appropriately to receiving feedback and constructive criticism.
Work ethic to revise, edit, and rewrite drafts of an essay.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, f	Students will be able to develop sentences and paragraphs in response to issues and themes raised in class.
②	e	Students will be able to draw on cultural knowledge and personal experience to express themselves.
③	d, f, g	Students will be able to use planning techniques and peer review to develop their and others' work.
④	e, f	Students will be able to achieve clarity of thought by identifying the features of various genres of writing.
⑤	f, g	Students will be able to use rhetorical appeals to express thoughts and opinions and to persuade others.
⑥	e, f, i	Students will be able to investigate and discuss authors' intentions and meanings in various examples.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	80	0	20	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	5	0	0	25
	Ability to think, reason and create	0	0	20	0	5	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	20	0	5	0	0	25
	Attitude and motivation for learning	0	0	20	0	5	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will write 2 different genres of essay, which will be graded according on Process (25), Task Achievement (25), Cohesion (25), Coherence (25). Essays will be submitted online. Feedback will be given online before the following lesson. Students will complete Academic Writing Task 1 and Task 2 twice each. These will be graded on Task Achievement (9), Coherence & Cohesion (9), Lexical Resource (9), Grammar (9). Feedback will be given online and in writing at the start of the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will write a journal of at least 200 words on an assigned topic for homework after each of the first 14 lessons. The journals will be submitted online. Students will receive credit for journals of sufficient length submitted on time. Each journal is worth 10 points. Feedback will be given online before the following lesson.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students improve their writing drastically, go through the writing process, respond appropriately to feedback, and produce paragraphs of various genres that are logically structured, well argued, and supported by evidence from reliable sources. Students complete and submit all work on time. Students achieve high scores on academic writing tasks.	Students improve their writing to some extent, go through the writing process, respond to some feedback, and produce paragraphs of various genres that are for the most part logically structured, well argued, and supported by evidence from reliable sources. Students achieve reasonable scores on academic writing tasks.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Academic Writing Task 1: Students will review the features and structures of effective Task 1 answers.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
2 /	Academic Writing Task 1: Students will attempt Task 1 under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
3 /	Academic Writing Task 2: Students will review the features and structures of effective Task 2 answers.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
4 /	Academic Writing Task 2: Students will attempt Task 2 under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
5 /	Process Essay 1: Students will review the features and structures of a process paragraph, review their own paragraph, then plan and write a process essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
6 /	Process Essay 2: Students will continue writing their process essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
7 /	Process Essay 3: Students will continue writing their process essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
8 /	Process Essay 4: Students will complete and submit their process essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
9 /	Academic Writing Task 1: Students will review Task 1 and attempt an answer under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
10 /	Comparison Essay 1: Students will review the features and structures of a comparison paragraph, review their own paragraph, then plan and write a comparison essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Comparison Essay 2: Students will continue writing their comparison essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
12 /	Comparison Essay 3: Students will continue writing their comparison essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
13 /	Comparison Essay 4: Students will complete and submit their comparison essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
14 /	Academic Writing Task 2: Students will review Task 2 and attempt an answer under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
15 /	Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work		

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	国語表現IIB	1	620700	後学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	黒田　譜美	白山麓C 101.201		

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	書く	自分の思いや考えを多彩に表現したり、相手の声に共感をもって耳を傾けたりできるようになるために、言葉遊びや話し合い、エッセイや物語の創作など多種多様な言語活動に取り組む。物語の創作では、ストーリーマップやキャラクターマップを用い、緻密な世界観や魅力のある登場人物を設定して、一貫性のある物語を構成・展開できるようにするとともに、言葉のリズムやレトリック等表現の細部を工夫できるようにする。また、ものの見方、感じ方、考え方を豊かにする読書の意義と効用について理解を深め、生涯にわたって読書に親しむ態度を育成する。
2	話す	
3	聴く	
4	読む	
5	創作	

授業の概要および学習上の助言

■授業概要

国語表現ⅡBでは、教科書『国語表現』（大修館書店）の下記内容に取り組む。

読書のひろば

言葉で遊ぶ

エッセイを書こう

加えて、『国語表現　改訂版』（教育出版）の下記内容を参考とする。

絵から物語を作る

テーマから物語を作る

■学習上の助言

・課題は必ず提出すること。

・毎時の小テストは地道に取り組むこと。

・辞書は必ず用意すること。また、辞書を常に引くように心がけ、知らない言葉を確認し、着実に身につけること。

・さまざまなジャンルの本を読むよう心がけること。

【教科書および参考書・リザーブドブック】

教科書：『国語表現』大修館書店 ISBN：978-4-469-62396-3、『国語の常識 plus』明治書院 ISBN：978-4-469-625-23405-7

参考書：

ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

国語表現IA、IB、ⅡAを履修し、日本語の読解力や文章表現力を身につけている。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e, f	常用漢字の読み書きの習得に積極的に努める。
②	e, f	故事成語や慣用句の意味を理解し、実際に使うことができる。
③	e, f	キャラクターマップを用い、架空のキャラクターを設定できる。
④	e, f	ストーリーマップを用い、構成や展開を意識して物語を書くことができる。
⑤	e, f	読み手を意識し、着眼点、構成、文体、語句などを工夫して、エッセイを書くことができる。
⑥	e, f	読書の意義と効用について理解を深め、読書経験を重ねることができる

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	30	40	10	0	20	0	100
総合力指標	知識を取り込む力	0	30	0	0	0	0	0	30
	思考・推論・創造する力	0	0	20	0	0	10	0	30
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	20	10	0	10	0	40
	学習に取組む姿勢・意欲	0	0	0	0	0	0	0	0

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	漢字・故事成語・慣用句の小テスト：30点
	②	レ	
	③		
	④		
	⑤		
	⑥		
レポート	①		創作：30点 エッセイ：10点
	②		
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
成果発表 （口頭・実技）	①		ビブリオバトル：10点
	②		
	③		
	④		
	⑤		
	⑥	レ	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		レトリック：10点 こちら悩みごと相談室：10点
	②		
	③		
	④		
	⑤	レ	
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
漢字を常に正確に読み書きできる。 故事成語や慣用句の意味を理解し、実際に使うことができる。 キャラクターの構成要素を理解し、魅力的なキャラクターを造形できる。 ストーリーマップを活かし、構成や展開を意識して独創的な物語を書くことができる。 着眼点、構成、文体、語句などを工夫して、エッセイを書くことができる。 読書の意義と効用について理解を深め、読書経験を重ねることができる。	漢字の習得に積極的に努めることができる。 故事成語や慣用句の意味を理解することができる。 キャラクターを構成する要素を理解し、詳細を設定できる。 ストーリーマップを用い、展開を意識して物語を書くことができる。 着眼点、構成、文体、語句などを工夫して、エッセイを書くことができる。 読書の意義と効用について理解し、読書経験を重ねることができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	■科目ガイダンス ・科目の目的、内容、評価方法について理解する。 レトリック ・比喩の種類と効果について理解する。 ・比喩を用いた文章を書き、批評し合う。	ポートフォリオ 講義と質疑 プリント配布	復習：配布プリントを再読し、学習教育目標や行動目標を確認する。	30
2 ／	レトリック ・押韻の仕組みと効果について理解する。 ・押韻した歌詞を作ったり、自分の好きな歌詞を挙げ、どのような技法が用いられているかを説明したりする。	小テスト① ポートフォリオ 講義と質疑 プリント配布 グループワーク	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
3 ／	キャラクターとしての「私」 ・ファミリー・ロマンスを創作する。 ・他学生の作品の続きを創作する。	小テスト② 講義と質疑 プリント配布 グループワーク 小テスト①返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
4 ／	絵から物語を作る ・発端、展開、クライマックス、結末の展開を意識して、4枚の絵から短い物語を作る。	レポート提出 講義と質疑 プリント配布 グループワーク 小テスト②返却	予習：教科書・ノートを見直す。 復習：相互評価を見直す。	30
5 ／	物語の構成 ・プロップのカードを利用して物語を分析し、ストーリの展開要素について理解する。	小テスト③ 講義と質疑 プリント配布 グループワーク	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
6 ／	物語のテーマと設計図 ・物語のテーマを決める。 ・ストーリーマップとキャラクターマップを利用して物語の設計図を作る。	講義と質疑 プリント配布 グループワーク	予習：物語のテーマを決める。 復習：ノート・教科書を見直す。	30
7 ／	物語の創作 ・設計図に沿って物語を書く。	レポート提出 講義と質疑 プリント配布 グループワーク	予習：ストーリメモを読み直す。 復習：作品を仕上げる。	30
8 ／	物語の鑑賞と批評 ・作品を朗読し、感想を伝え合う。	講義と質疑 プリント配布 グループワーク	予習：作品を読み直す。 復習：相互評価を見直す。	30
9 ／	こちら悩みごと相談室 ・相談者を理解し、立場や視点を定めて回答を書く。 ・回答を読み、感想を伝え合う。	小テスト④ 講義と質疑 プリント配布 グループワーク	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30
10 ／	建設的な議論の進め方 ・話し合いのステップを意識しながら参加し、建設的な議論になるよう協力し合う。	小テスト⑤ 講義と質疑 プリント配布 グループワーク 小テスト④返却	予習：小テストのための学習をする。 復習：教科書・ノートを見直す。	30

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	エッセイ ・優れたエッセイを観賞し、視点や描写の面白さを味わう。	小テスト⑥ 講義と質疑 プリント配布 グループワーク 小テスト⑤返却	予習：小テストのための学習をする。 復習：作品を読み直す。	30
12 ／	エッセイ ・日常生活から題材を見つける。 ・書き出しや結びの工夫、レトリックの活用に挑戦して、実際にエッセイを書く。	レポート提出 講義と質疑 プリント配布 グループワーク 小テスト⑥返却	予習：エッセイのテーマを決める。 復習：エッセイを仕上げる。	30
13 ／	エッセイ ・作品を読み合い、相互評価する。	講義と質疑 プリント配布 グループワーク	予習：エッセイを見直す。 復習：相互評価を見直す。	30
14 ／	ビブリオバトル ・発表内容の主題を決め、構成や展開を考える。	講義と質疑 プリント配布 グループワーク	予習：プレゼンテーションのテーマを決める。 復習：構成ノートを作成する。	30
15 ／	ビブリオバトル ・身ぶりや手ぶりや表情なども活用し、本の魅力を表現する。 ・発表を聞いて質問したり、感想を伝えたりする。	成果発表 講義と質疑 プリント配布 グループワーク ふりかえり	予習：発表の練習をする。 復習：相互評価を見直す。	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Expression II B	1	620800	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAYLOR, James	Hakusanroku C: 101.201		Monday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Writing	Students will come to prepared to speak and write in English. To progress in the class students will complete and submit tasks on time. Peer review and feedback are important parts of the writing process, so students will use every opportunity to communicate with classmates, respect others' ideas and opinions. It is crucial to ask classmates or the teacher for help when necessary.
2	Essays	
3	Genres	
4	Journal	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

Students will consider what they learnt in English Expression I A, I B, and II A and will expand on their knowledge by continuing to learn about and practice the writing process, including planning and peer review, to write essays. Through the writing process and targeted language activities, students will gain the skills to describe their ideas logically in written English. Short writing tasks will be completed on a weekly basis for homework to give students further opportunities to practice expressing themselves. Students will learn and practice the skills and language to achieve high scores on academic writing tasks.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in written English.
Desire to improve writing skills through responding appropriately to receiving feedback and constructive criticism.
Work ethic to revise, edit, and rewrite drafts of an essay.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, f	Students will be able to develop sentences and paragraphs in response to issues and themes raised in class.
②	e	Students will be able to draw on cultural knowledge and personal experience to express themselves.
③	d, f, g	Students will be able to use planning techniques and peer review to develop their and others' work.
④	e, f	Students will be able to achieve clarity of thought by identifying the features of various genres of writing.
⑤	f, g	Students will be able to use rhetorical appeals to express thoughts and opinions and to persuade others.
⑥	e, f, i	Students will be able to investigate and discuss authors' intentions and meanings in various examples.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	80	0	20	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	5	0	0	25
	Ability to think, reason and create	0	0	20	0	5	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	20	0	5	0	0	25
	Attitude and motivation for learning	0	0	20	0	5	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will write 2 different genres of essay, which will be graded according on Process (25), Task Achievement (25), Cohesion (25), Coherence (25). Essays will be submitted online. Feedback will be given online before the following lesson. Students will complete Academic Writing Task 1 and Task 2 twice each. These will be graded on Task Achievement (9), Coherence & Cohesion (9), Lexical Resource (9), Grammar (9). Feedback will be given online and in writing at the start of the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will write a journal of at least 200 words on an assigned topic for homework after each of the first 14 lessons. The journals will be submitted online. Students will receive credit for journals of sufficient length submitted on time. Each journal is worth 10 points. Feedback will be given online before the following lesson.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students improve their writing drastically, go through the writing process, respond appropriately to feedback, and produce paragraphs of various genres that are logically structured, well argued, and supported by evidence from reliable sources. Students complete and submit all work on time. Students achieve high scores on academic writing tasks.	Students improve their writing to some extent, go through the writing process, respond to some feedback, and produce paragraphs of various genres that are for the most part logically structured, well argued, and supported by evidence from reliable sources. Students achieve reasonable scores on academic writing tasks.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Academic Writing Task 1: Students will review the features and structures of effective Task 1 answers.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
2 /	Academic Writing Task 1: Students will attempt Task 1 under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
3 /	Academic Writing Task 2: Students will review the features and structures of effective Task 2 answers.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
4 /	Academic Writing Task 2: Students will attempt Task 2 under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
5 /	Problem-Solution Essay 1: Students will review the features and structures of a problem-solution paragraph, review their own paragraph, then plan and write a problem-solution essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
6 /	Problem-Solution Essay 2: Students will continue writing their problem-solution essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
7 /	Problem-solution Essay 3: Students will continue writing their problem-solution essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
8 /	Problem-solution Essay 4: Students will complete and submit their problem-solution essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
9 /	Academic Writing Task 1: Students will review Task 1 and attempt an answer under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
10 /	Persuasive Essay 1: Students will review the features and structures of a persuasive paragraph, review their own paragraph, then plan and write a persuasive essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Persuasive Essay 2: Students will continue writing their persuasive essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
12 /	Persuasive Essay 3: Students will continue writing their persuasive essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
13 /	Persuasive Essay 4: Students will complete and submit their persuasive essay.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
14 /	Academic Writing Task 2: Students will review Task 2 and attempt an answer under exam conditions.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work	Journal	30
15 /	Review: Students will review what was learnt in this course, reflect on their performance, and consider their future English writing studies.	Worksheets, writing, brainstorming, discussion, peer review; individual, pair, and group work		

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授業形態
国際理工学科 一般科目 選択	日本語ⅡA Japanese IIA	2	622200	前学期 1st semester	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	筒井　昌子 TSUSUI, Masako	白山麓C 101.201		

授業科目の学習教育目標

	キーワード	学習教育目標
1	日本語	この科目では、先学期開講した「日本語ＩB」から継続して、日常の日本語でのコミュニケーション能力と文法表現・文字・語彙知識を向上させることをめざす。 Continuing from the Japanese IB class in the previous semester, students will aim to improve their daily communication proficiency while developing their knowledge in grammar expressions, kanji and vocabulary.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

この科目では、中級教材およびワークブックを用いて、コミュニケーション上で実践的に使える表現や漢字と語彙の知識を増やす学習を行う。

Using an intermediate level textbook and its workbooks students will engage in the work to increase their knowledge and practical skills in grammar expressions, kanji and grammar.

【教科書および参考書・リザーブドブック】

教科書：　「テーマ別　中級から学ぶ日本語〈三訂版〉」研究社 2014　ISBN:978-4-327-38465-4

ワークブック：「テーマ別　中級から学ぶ日本語　ワークブック」研究社 2015　ISBN:978-4-327-38466-1

練習帳：　「テーマ別中級から学ぶ日本語（三訂版）準拠　力を伸ばす練習帳」研究社 2018　ISBN: 978-4-327-38479-1

参考書：なし

ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

日本語初中級程度以上の漢字・語彙・文法知識および実際に使える技能

Knowledge and practical skill of beginning ~semi-intermediate level of kanji, vocabulary, grammar.

№	教育目標(DP) （記号表記）	学生が達成すべき行動目標
①	e,i	テキストで学んだ文型や語彙が用いられた日本語表現の意味を理解できる。 Students can understand the meaning of the grammar expressions and vocabulary they learned in the textbooks.
②	e,i	テキストで学んだ文型や語彙を用いて、自分の意志を伝えることができる。 Students can express their ideas using the grammar expressions and vocabulary they learned in the textbooks.
③	e,i	話し言葉と書き言葉を区別できる。 Students can distinguish the speech style from the written style.
④	e,i	丁寧体（です/ます）と普通体（～る）を使い分けることができる。 Students can distinguish the polite form from the neutral form.
⑤	e,i	テキストで学んだ漢字を実際に使うことができる。 Students can use the kanji that they learned in the textbooks.
⑥		

達成度評価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作品	ポートフォリオ	その他	合計
総合評価割合		0	90	10	0	0	0	0	100
総合力指標	知識を取り込む力	0	90	0	0	0	0	0	90
	思考・推論・創造する力	0	0	0	0	0	0	0	0
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	10	0	0	0	0	10
	学習に取組む姿勢・意欲	0	0	0	0	0	0	0	0

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・クイズ・Quizzes 2課を終了後に漢字と単語のクイズを5回実施する（ただし、5回目は、Lesson 17のみ）。 成績1回あたり10点満点に換算し、クイズ点を40点とする。 A kanji and Vocabulary quiz is given after finishing two lessons (the 5th one is only for one lesson). The total number of the quizzes will be five, and each quiz score will be converted 10 points full score. These quiz scores count 40 points at most. ・テスト・Tests 学期中に2回、4～5課ごとの内容にもとづく文法・読解・聴解分野についてのテストを実施する。 成績は1回あたり25点満点に換算し、テスト点を50点満点とする。 Two tests on grammar, reading and listening are given during the semester, each one covering 4 or 5 lessons. Each test counts 25 full points, and the total test score will be 50 points at most.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
レポート	①	レ	学期中に2回、メインテキストの「話しましょう」に挙げられているトピックの中から好きなものを一つ選んで、100～200字の作文を書いて提出。内容や分量が条件に合っていて、締め切りまでに提出されれば１回あたり5点、不十分な点があれば適宜減点する。 During the semester, students are assigned to write a short essay (100-200 characters) on one of the topics listed in the 話しましょうsection in the main textbook two times. If the quality of the content and the length fulfill the requirement, and the essay is turned in by each due date, 5 points are given. If any of them is missed, penalty points are deducted.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
成果発表 （口頭・実技）	①		
	②		
	③		
	④		
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・助詞を正しく使って、学習した文型で文を産出できる。 ・自分が言いたいことを、学習した文型や語彙を用いて、いくつかの単文で表現できる。 ・辞書を使いながらまとまった長さの文章をひとりで読んで、大意を正しく理解できる。 -Can produce sentences using the learned sentence patterns with correct use of particles. -Can express what he/she wants to say in several single sentences using the learned sentence patterns and vocabulary. -Able to read sentences of a coherent length on one's own using a dictionary and correctly understand the main idea.	・時折、助詞の間違いなどはあるが、意味が通じる程度の正確さで学習した文型を産出できる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながら、いくつかの単文で表現できる。 ・教師に助言をもらいながらまとまった長さの文章を読んで、大意をおおよそ理解できる。 -Can produce the learned sentence patterns with enough accuracy to make sense, despite occasional errors with particles. -Able to express what they want to say in a few single sentences with the help of native speakers in terms of sentence structure and vocabulary. -With the help of a teacher, be able to read sentences of a coherent length and understand the main idea.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1	授業説明 Class Orientation L8までの復習 Review up to L8 Lesson 9 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III ＊練習帳（れんしゅうちょう hereafter EXBook）：漢字 メインテキスト（TXT）： 新しい言葉	講義・演習 Lecture・Practice	復習 Review	15
2	Lesson 9 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
3	Lesson 9 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋ B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30
4	Lesson 9 WB：宿題チェック 読んでみましょう Lesson 10 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review	15
5	Lesson 10 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
6	Lesson 10 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30
7	Lesson 10 WB：宿題チェック 読んでみましょう L6-10 復習 Lesson 11 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 漢字・単語クイズの準備 Study for Kanji & Voc Quiz	30
8	**漢字・単語クイズ＃1 (LL9-10)** Lesson 11 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	復習 Review	15
9	Lesson 11 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
10	Lesson 11 WB：宿題チェック 読んでみましょう Lesson 12 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 作文 Write an Essay	30
11	Lesson 12 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
12	Lesson 12 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30
13	Lesson 12 WB：宿題チェック 読んでみましょう Lesson 13 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 漢字・単語クイズの準備 Study for Kanji & Voc Quiz	15
14	**漢字・単語クイズ＃2 (LL11-12)** Lesson 13 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	復習 Review	15
15	Lesson 13 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review 文法・読解・聴解テストの準備 Study for Grammar, Reading and Listening Test.	30
16	**文法・読解・聴解テスト＃1 (LL9-12)** オノマトペ	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	復習 Review ワークブック（WB） 練習しましょう	30
17	Lesson 13 WB：宿題チェック 読んでみましょう Lesson 14 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review	15
18	Lesson 14 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
19	Lesson 14 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30

授業明細表

ＣＬＩＰ学習プロセスについて

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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
20	Lesson 14 WB：宿題チェック 読んでみましょう Lesson 15 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 漢字・単語クイズの準備 Study for Kanji & Voc Quiz	30
21	**漢字・単語クイズ＃3 (LL13-14)** Lesson 15 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return	復習 Review	15
22	Lesson 15 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30
23	Lesson 15 WB：宿題チェック 読んでみましょう L11-15 復習 Lesson 16 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 作文 Write an Essay	30
24	Lesson 16 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
25	Lesson 16 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30
26	Lesson 16 WB：宿題チェック 読んでみましょう Lesson 17 EXBook： 漢字 TXT： 新しい言葉 EXBook： II & III	講義・演習 Lecture・Practice	復習 Review 漢字・単語クイズの準備 Study for Kanji & Voc Quiz	30
27	**漢字・単語クイズ＃4 (LL15-16)** Lesson 17 TXT： 使いましょう（導入introduction） 読みましょう 答えましょう	講義・演習 Lecture・Practice	復習 Review	15
28	Lesson 17 漢字の復習 TXT： 読みましょう（続き） 使いましょう（練習practice）＋練習 ワークブック（WB）： 聞きましょうA＋B	講義・演習 Lecture・Practice	復習 Review ワークブック（WB） 練習しましょう	30

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
29	Lesson 17 WB：宿題チェック 読んでみましょう L9-17　復習	講義・演習 Lecture・Practice	復習　Review 漢字・単語クイズの準備 Study for Kanji & Voc Quiz 文法・読解・聴解テストの準備 Study for Grammar, Reading and Listening Test.	30
30	**漢字・単語クイズ＃5 (L17)** **文法・読解・聴解テスト＃2 (LL13-17)** 総復習 Review 振り返りと自己評価 Reflections & self evaluation	講義・演習 Lecture・Practice クイズ実施・採点・返却 Quiz, Grading & Return		なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing II A (Writing Strategies)	1	622300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	BAIRD, Pauline	Hakusanroku C 101.201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and more reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections: Reading Strategy and Writing Strategies.

(Writing Strategies)
Mini-workshops, exercises
You need to submit all assignments on their due dates. They will be returned to you the next week.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: None (Handouts)
Reference books: *Skills for Academic Success: Reading Choice.* 978-8214-17725-0
Reserved books: *IELTS 12 Academic* by Cambridge University Press. 2017

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	65	25	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	55	15	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30%: (Reading) Each quiz will be given after each reading skill. (Writing) Timed Paragraph Writing 10%: Speed reading homework 15%: Vocabulary quiz (KIKUTAN) in Learning Session 10%: Homework Journal- Critical Thinking and Writing on topics of student's Choice (100-150 words). Responses will be graded for the main idea, sentence focus, and vocabulary. Responses will be graded and returned in class the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	25% (Reading) Complete the handouts and submit in time. The class handouts will be returned in class after a quiz. (Writing) A complete draft of three (3) assigned paragraphs. Worksheets and exercises. Submit them in class on the due date. Assignments will be graded and returned in class the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Discuss personal writing goals, grading Rubrics for academic writing, writing expectations, & suggest ten themes (IELTS 2) for critical thinking journals.	Diagnostic Test Exercise	Read the syllabus Study vocabulary	20
2 /	**Unit 1: Personal Profile** Paragraph Analysis & Transition Words for logical or chronological order *Homework Journal 1:* - *Critical Thinking 100 – 150 words*	Mini-workshop Exercise	Review and complete assignments.	30
3 /	Exercises: Outlining with timelines *Homework Journal 2:* - *Critical Thinking 100 – 150 words*	Workshop Exercise	Review and complete assignments.	30
4 /	Essay 1: Begin the Personal Profile (15-20 sentences) *Homework Journal 3:* - *Critical Thinking 100 – 150 words*	Conferencing and peer review	Review and complete assignments.	30
5 /	**Unit 2: Classification** *Homework Journal 4:* - *Critical Thinking 100 – 150 words* ***Personal Profile Paragraph Due***		Review and complete assignments.	30
6 /	Exercises Tabular notes, Cloze/Dictation, Paragraph *Homework Journal 5:* *Critical Thinking 100 – 150 words*	Workshop Exercise	Review and complete assignments.	30
7 /	Paragraph Outlining and Drafting *Homework Journal 6:* *Critical Thinking 100 – 150 words*	Conferencing and peer review	Review and complete assignments.	30
8 /	**Unit 3: Comparison and Contrast** Paragraph Analysis Useful Expressions & Grammar (*would, could, might)* *Homework Journal 7:* *Critical Thinking 100 – 150 words* ***Classification Paragraph Due***	Diagnostic Test Exercise	Review and complete assignments.	30
9 /	Exercises Tabular notes, Cloze/Dictation, Paragraph *Homework Journal 8:* - *Critical Thinking 100 – 150 words*	Workshop Exercise	Review and complete assignments.	30
10 /	Paragraph Outlining and Drafting *Homework Journal 9:* - *Critical Thinking 100 – 150 words*	Conferencing and peer review	Review and complete assignments.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	**Unit 4: Cause and Effect** Paragraph Analysis Useful Expressions & Grammar (*would, could, might)* *Homework Journal 10:* - *Critical Thinking 100 – 150 words* ***Comparison and Contrast Paragraph Due***	Workshop Exercise	Review and complete assignments.	30
12 /	Exercises Tabular notes, Cloze/Dictation, Paragraph *Homework Journal Catch-Up* - *Critical Thinking 100 – 150 words*	Conferencing and peer review	Review and complete assignments.	30
13 /	Paragraph Outlining and Drafting *Homework Journal Catch-Up* - *Critical Thinking 100 – 150 words*	Diagnostic Test Exercise	Review and complete assignments.	30
14 /	Paragraph Outlining and Drafting *Homework Journal Catch-Up* - *Critical Thinking 100 – 150 words* ***Cause and Effect paragraph due***	Workshop Exercise	Review and complete assignments.	30
15 /	Post-Instruction assessment Reflections and course evaluation	Conferencing and peer review	Review and prepare for exam	30
16 /	Final Exam	Review & evaluate your progress	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing II A (Advanced)	1	622000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	REYNOLDS, Stephanie	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 4 sections; Reading Strategy, Vocabulary, Extensive Reading, and Writing.

(Reading Strategy) In-class activities and exercises to practice academic reading skills.

(Vocabulary) Personalized study sets, practice, and regular quizzes to measure growth of vocabulary understanding.

(Extensive Reading) Sustained silent-reading of 1 or more self-selected books at an independent reading level and reflection/discussion.

(Writing) In-class activities and exercises to practice grammar and organization of 2 genres of essays.

You need to keep all your assignments and handouts in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books: Reading Explorer Level 4 9780357124734 and Reading Explorer Level 5 9780357124741

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description writing styles.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading Strategy) In-class assignments will be given for each unit covered. 15% : (Vocabulary) 5 Vocabulary quizzes will be given in classes 3, 6, 9, 12, 15, 15% : (Extensive Reading) In-class extensive reading assignments based on 1 or more self-selected books. Feedback and graded assignments will be returned in class and/or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	6%: 6 Grammar exercise activities, each will be graded on completion of the tasks and revision. 24%: Students will write 2 different genres of essays, which will be graded according to the following criteria: Writing Process, Task Achievement, Cohesion, and Coherence. Students will write 750-1000 words on each assignment in class or for homework after each lesson. Students will submit assignments online before the next class period. Verbal and written feedback will be given in writing conferences with the teacher during the following class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Reading: Unit 1A Reading skills and vocabulary exercises. Writing: Students will learn about the features and structure of a descriptive essay.	Exercises. Free writing on an assigned or self -selected topic.	Read the syllabus. Complete assignments and turn in online before the next class.	30
2 /	Reading: Unit 1B Reading skills and vocabulary exercises. Writing: Students will brainstorm their own essay topics and write an outline.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
3 /	Reading: Unit 1 Review & Quiz 1, Extensive Reading Introduction. Writing: Students will practice descriptive writing techniques.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
4 /	Reading: Unit 2A Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (1).	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
5 /	Reading: Unit 2B Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (2).	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
6 /	Reading: Unit 2 Review & Quiz 2. Writing: Students will write introduction and conclusion paragraphs.	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
7 /	Reading: Unit 3A Reading skills and vocabulary exercises. Writing Students will review, discuss, and revise their descriptive essay.	Exercises. Discuss and revise essay.	Revise and complete unfinished assignments. Turn in online before the next class.	30
8 /	Reading: Unit 3B Reading skills and vocabulary exercises. Writing: Students will learn about the features and structure of a cause & effect essay.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
9 /	Reading: Unit 3 Review & Quiz 3. Writing: Students will brainstorm their own essay topics and write an outline.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
10 /	Reading: Unit 4A Reading skills and vocabulary exercises. Writing: Students will practice cause & effect writing techniques.	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reading: Unit 4B Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (1).	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
12 /	Reading: Unit 4 Review & Quiz 4. Writing: Students will write three body paragraphs (2).	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
13 /	Reading: Unit 5A Reading skills and vocabulary exercises. Writing: Students will write introduction and conclusion paragraphs.	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
14 /	Reading: Unit 5B Reading skills and vocabulary exercises Writing: Students will review, discuss, and revise their cause & effect essay.	Exercises. Discuss and revise essay.	Revise and complete unfinished assignments. Turn in online before the next class.	30
15 /	Reading: Unit 5 Review & Quiz 5. Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester.	Review and evaluate your progress and understanding.		30
16 /	Final Exam	Review and evaluate your progress and understanding.	Review the final exam.	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing II A (Reading Strategy)	1	622300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TSUDA, Akihiro	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and more reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Reading Strategy)
Lecture, exercise
You need to submit all the handouts after a quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: キクタン Advanced 6000,（アルク社）9784757422070「１０分間英語速読トレーニング Level 3」（桐原書店） 9784342156359
Reserved books: *Reading Power 2* ISBN: 9780138143886 / *Reading Power 3* ISBN: 9780132089036

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading) Each quiz will be given after each reading skill. (Writing) A final draft of three (3) essays with your highest passing scores. 10% : Speed reading homework (Online) 10% : Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in the following week. 10%: In-class Critical Thinking Journals (150-250 words) Journals will be graded and returned in class the following week
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	(Reading) Complete the handouts and submit in time. The class handouts will be returned in class after a quiz. (Writing) Complete all exercises and drafts. Submit them at the end of each unit in class or online. Graded assignments will be returned in class or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction	Lecture Exercise	Read the syllabus Study vocabulary	20
2 /	Scanning	Lecture Exercise	Speed Reading L1-2 Review reading skills	30
3 /	Scanning Quiz	Lecture Exercise	Speed Reading L1-2 Review reading skills	30
4 /	Collocations	Lecture Exercise	Speed Reading L3-4 Review reading skills	30
5 /	Collocations Quiz	Lecture Exercise	Speed Reading L5-6 Review reading skills	30
6 /	Focusing on the Topic	Lecture Exercise	Speed Reading L7-8 Review reading skills	30
7 /	Focusing on the Topic	Lecture Exercise	Speed Reading L7-8 Review reading skills	30
8 /	Learning about Context Quiz	Lecture Exercise	Speed Reading L9-10 Review reading skills	30
9 /	Focusing on the Topic Quiz	Lecture Exercise	Speed Reading L11-12 Review reading skills	30
10 /	Understanding Paragraphs	Lecture Exercise	Speed Reading L13-14 Review reading skills	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Understanding Paragraphs Quiz	Lecture Exercise	Speed Reading L13-14 Review reading skills	30
12 /	IELTS Strategies	Lecture Exercise	Speed Reading L17-18 Review reading skills	30
13 /	IELTS Strategies	Lecture Exercise	Speed Reading L19-20 Review reading skills	30
14 /	IELTS Strategies	Lecture Exercise	Speed Reading L21-22 Review reading skills	30
15 /	IELTS Strategies	Lecture Exercise	Speed Reading L21-22 Review reading skills	30
16 /	Final Exam	Review and evaluate your progress and understanding	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking II A (b)	1	622400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	BASQUILL Edward	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike, their hobbies and to describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able exercise literacy skills including, speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 3 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 4*

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Beginner English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to discuss and describe people's dreams and ambitions.
②	f	Students will be able to discuss and describe movies/books and the effects storytelling has on people.
③	d, h	Students will be able to discuss and describe natural places, world heritage sites, and nature preservation.
④	f, i	Students will be able to use language for the purposes of expressing agreement, counter arguing, and future possibilities .
⑤	g, f, i	Students will be able to use gradable/ungradable adjectives and phrasal verbs to add nuance to explanations.
⑥	d, f	Students will be able to use conditional language to speak on real and hypothetical situations.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be based on the IELTS exam and will be given 2 times spread out over the semester. Quizzes will be graded and returned within two weeks.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Classwork tasks from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will complete an oral exercise (recorded) through-out the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	IELTS Milestone quiz 1:	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 3 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	IELTS Milestone quiz 2:	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	Wrap Up and Review Focus: Reflection on semester	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking II A (Advanced)	1	622400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAYLOR, James	Hakusanroku C. 101-201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies; describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for the students to be able to exercise literacy skills including, speaking, listening, and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 3 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 2 (Intermediate): National Geographic Learning by (Eds). Lewis Lansford, Daniel Barber, Amanda Jeffers (National Geographic Learning) 2018.* ISBN: 978-1-337-27713-6.

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Upper-intermediate/advanced English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to set goals, make agree and disagree statements, and ask questions.
⑤	g, f, i	Students will be able to discuss past events and ask for, and make recommendations.
⑥	d, f	Students will be able to discuss time, explain causes, and give reasons.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be Proficiency Quizzes in lessons 7 and 14. Quizzes will use IELTS-style questions. Quizzes are designed to show the progress of students' English ability during the semester. Each quiz will have a minimum score required to pass. Failure to achieve the minimum target score will require the student to take a retest. Quizzes will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will do grammar/vocabulary activities in each unit, which will be graded and returned with feedback by the following lesson in class. Each unit will contain a listening activity. This will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	There will be at least one speaking activity in each unit. Speaking activities will be graded and returned with feedback by the following lesson in class. Students will complete a spoken reflection exercise at the end of each unit. Reflections will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will work efficiently to complete tasks on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will work somewhat efficiently to complete tasks on time and to a reasonable standard. Students will respond to most feedback appropriately and occasionally seek help when necessary.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Unit 1: Hopes and Dreams Grammar/Vocabulary	Syllabus; stations; textbook; worksheets; online activities; individual, pair, and group activities.	Review the syllabus.	30
2 /	Unit 1: Hopes and Dreams Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
3 /	Unit 1: Hopes and Dreams Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
4 /	Unit 1: Hopes and Dreams Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
5 /	Unit 2: Reading the World Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
6 /	Unit 2: Reading the World Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
7 /	Progress Quiz 1	Test questions.	Review the test questions.	30
8 /	Unit 2: Reading the World Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
9 /	Unit 2: Reading the World Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
10 /	Unit 3: Pristine Places Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Unit 3: Pristine Places Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
12 /	Unit 3: Pristine Places Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
13 /	Unit 3: Pristine Places Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
14 /	Progress Quiz 2	Test questions.	Review the test questions.	30
15 /	Review & Catch-up	End of course questionnaire; self-assessment activities.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking IIA (a)	1	622400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	STEVENSON, Ian	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike, their hobbies and to describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able exercise literacy skills including, speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the first 3 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 4 (Advanced): National Geographic Learning* by (Eds). Lewis Lansford, Daniel Barber, Amanda Jefferies. ISBN 978-1-337-27715-0

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to set goals, make agree and disagree statements, and ask questions.
⑤	g, f, i	Students will be able to discuss past events and ask for, and make recommendations.
⑥	d, f	Students will be able to discuss time, explain causes, and give reasons.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quizzes will be based on the IELTS exam and will be given 2 times spread out over the semester. Quizzes will be graded and returned within two weeks.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Classwork tasks from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will complete an oral exercise (recorded) through-out the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 1 and 2 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 1 and 2 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 1 and 2 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	IELTS Milestone quiz 1:IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 10 and Semester Review Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	IELTS Milestone quiz 2: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	Wrap Up and Review Focus: Reflection on semester	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単 位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	日本語ⅡB Japanese IIB	2	622500	後学期 2nd semester	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	筒井　昌子 TSUSUI, Masako	白山麓C 101.201		

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	日本語	この科目では、伝わる日本語を身につけるために知識をさらに増やす。 In this course, students will further increase their knowledge in order to acquire Japanese language skills that can be communicated.
2	コミュニケーションスキル	
3	日本文化・社会	
4		
5		

授業の概要および学習上の助言

この科目では、中級教材およびワークブックを用いて、コミュニケーション上で実践的に使える表現や漢字と語彙の知識を増やす学習を行う。
Using an intermediate level textbook and its workbooks students will engage in the work to increase their knowledge and practical skills in grammar expressions, kanji and grammar.

【教科書および参考書・リザーブドブック】
教科書：「シャドーイング 日本語を話そう 初～中級編」くろしお出版 2023 ISBN 978487424850
練習帳：「日本語総まとめ N3 文法 英語・ベトナム語版　増補改訂版ワークブック」アスク 2022 ISBN 9784866395081
参考書：なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：なし

履修に必要な予備知識や技能

日本語初中級程度以上の漢字・語彙・文法知識および実際に使える技能
Knowledge and practical skill of beginning ~semi-intermediate level of kanji, vocabulary, grammar.

№	教育目標(DP) （記号表記）	学生が達成すべき行動目標
①	e,i	テキストで学んだ文型や語彙が用いられた日本語表現の意味を理解できる。 Can understand the meaning of Japanese expressions in which sentence patterns and vocabulary learned in the text are used.
②	e,i	テキストで学んだ文型や語彙を用いて自分の意志を伝えることができる。 Can communicate his/her intention using the sentence patterns and vocabulary learned in the text.
③	e,i	話し言葉と書き言葉を区別できる。 Can distinguish between the speech style from the written style.
④	e,i	丁寧体（です/ます）と普通体（～る）を使い分けることができる。 Can distinguish the polite form from the neutral form.
⑤	e,i	学んだ漢字を実際に使うことができる。 Can use the kanji that they learned.
⑥		

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	70	15	15	0	0	0	100
総合力指標	知識を取り込む力	0	70	0	0	0	0	0	70
	思考・推論・創造する力	0	0	0	0	0	0	0	0
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	10	10	0	0	0	20
	学習に取組む姿勢・意欲	0	0	5	5	0	0	0	10

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評 価 方 法	行動目標		評 価 の 実 施 方 法 と 注 意 点
試 験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・漢字・語彙クイズを実施する。評価割合を全体の20%とする。 ・文型・文法・読解のテストを行う。評価割合を全体の50%とする。 ※クイズの回数は授業初日に学習者とともに決定する。 -Kanji and Vocabulary quiz will be given. The percentage of evaluation will be 20% of the total. -A test on sentence patterns, grammar and reading will be given. The percentage of evaluation will be 50% of the total. *The number of quizzes and test will be decided after consultation with students on the first day of class.
	②		
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
レポート	①	レ	・与えられた課題でレポートを作成する。内容やでき映えを10%、取り組みへの姿勢・意欲（課題作成時の積極性、提出期限など）を5%で評価する。 -Students will write a report on the given assignment. The content and the quality of the report will be evaluated at 10%, and the attitude and motivation toward the work (positive attitude when writing the assignment, submission deadline, etc.) will be evaluated at 5%.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
成果発表 （口頭・実技）	①	レ	・与えられた課題でプレゼンテーションを行う。内容やでき映えを10%、取り組みへの姿勢・意欲（課題作成時の積極性、提出期限など）を5%で評価する。 -Presentation on the given assignment. The content and quality of the ppt doc. will be evaluated at 10%, and the attitude and motivation toward the work (positive attitude when writing the assignment, submission deadline, etc.) will be evaluated at 5%.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
作 品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・助詞を正しく使って、学習した文型で文を産出できる。 ・自分が言いたいことを、学習した文型や語彙を用いて、いくつかの単文で表現できる。 ・辞書を使いながらまとまった長さの文章をひとりで読んで、大意を正しく理解できる。 -Can produce sentences using the learned sentence patterns with correct use of particles. -Can express what he/she wants to say in several single sentences using the learned sentence patterns and vocabulary. -Able to read sentences of a coherent length on one's own using a dictionary and correctly understand the main idea.	・時折、助詞の間違いなどはあるが、意味が通じる程度の正確さで学習した文型を産出できる。 ・自分が言いたいことを、ネイティブスピーカーに文型や語彙を助けてもらいながら、いくつかの単文で表現できる。 ・教師に助言をもらいながらまとまった長さの文章を読んで、大意をおおよそ理解できる。 -Can produce the learned sentence patterns with enough accuracy to make sense, despite occasional errors with particles. -Able to express what they want to say in a few single sentences with the help of native speakers in terms of sentence structure and vocabulary. -With the help of a teacher, be able to read sentences of a coherent length and understand the main idea.

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	Class Orientation Review on the previous studies Q&A Conversation Explanation of Presentation Planning for the class schedule	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画書の仕上げと確認 Finalizing and confirming the study plan	15
2 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
3 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
4 ／	Textbook (Follow own study plan) or Prepare for the presentation	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan 発表の準備 Prepare for the presentation (not yet fixed)	30
5 ／	Textbook (Follow own study plan) Presentation (not yet fixed)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
6 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
7 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
8 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
9 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
10 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
11 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quiz	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
12 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
13 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15

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14 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
15 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan テストの準備 Prepare for the test	30
16 ／	Textbook (Follow own study plan) Test (not fixed)	講義・演習 Lecture・Practice テストの採点・返却 Grading and return of test	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
17 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
18 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
19 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
20 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
21 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
22 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
23 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
24 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
25 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan クイズの準備 Prepare for the quiz	30
26 ／	Textbook (Follow own study plan) Quiz (not fixed)	講義・演習 Lecture・Practice クイズの採点・返却 Grading and return of quizzes	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15
27 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan	15

授業明細表

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回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
28 ／	Textbook (Follow own study plan)	講義・演習 Lecture・Practice	授業内容の復習 Review the course contents 学習計画の見直し Review of study plan テストの準備 Prepare for the test	30
29 ／	Textbook (Follow own study plan) Finalize the report (not fixed yet) Test (not fixed)	講義・演習 Lecture・Practice テストの採点・返却 Grading and return of test	授業内容の復習 Review the course contents レポートの完成 Finalize the report	30
30 ／	Reflection & Self Evaluation	講義・演習 Lecture・Practice	* deadline for the Report (not fixed yet)	なし

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing II B (Writing Strategies)	1	622600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	BAIRD, Pauline	Hakusanroku C 101.201		M-W 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Reading Writing Vocabulary Grammar IELTS	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and more reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections: Reading Strategy and Writing Strategies.

(Writing Strategies)
Mini-workshops, exercises
You need to submit all assignments on their due dates. They will be returned to you the next week.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: None (Handouts)
Reference books: *Skills for Academic Success: Reading Choice.* 978-8214-17725-0
Reserved books: *IELTS 12 Academic* by Cambridge University Press. 2017

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30%: (Reading) Each quiz will be given after each reading skill. (Writing) A final draft of three (3) essays with your highest passing scores. 10%: Speed reading homework (Manaba) 10%: Vocabulary quiz (KIKUTAN) in Learning Session 10%: In-class Critical Thinking Journals (150-250 words) Journals will be graded and returned in class the following week
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	(Reading) Complete the handouts and submit them in time. The class handouts will be returned in class after a quiz. (Writing) Complete all exercises and drafts. Submit them in class on the due date. Assignments will be returned in class the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Pre-Writing Instruction Test	Diagnostic Test Exercise	Read the syllabus Study vocabulary	20
2 /	**Unit 1: Problem and Solution** Warm-up Paragraph Analysis Useful Expressions & Grammar (*subordinating conjunctions, for example, for instance, There is no doubt*)	Workshop Exercise	Review and complete assignments.	30
3 /	Paragraph Analysis Useful Expressions & Grammar (*subordinating conjunctions, for example, for instance, There is no doubt*)	Workshop Exercise	Review and complete assignments.	30
4 /	Journal 1: Critical Thinking Paragraph 250 words Cloze/dictation exercises	Conferencing and peer review	Review and complete assignments.	30
5 /	Problem Solution Paragraph Due & Catch- up	Conferencing and peer review	Review and complete assignments.	30
6 /	**Unit 2: Lifestyle and Technology** Warm-up Lecture and Text Information Analysis Grammar and Vocabulary Exercises	Workshop Exercise	Review and complete assignments.	30
7 /	Recall information Organize information	Workshop Exercise	Review and complete assignments.	30
8 /	Journal 2: Critical Thinking Paragraph 250 words	Conferencing and peer review	Review and complete assignments.	30
9 /	**Unit 2: Language and Culture** Warm-up Lecture and Text Information Analysis Grammar and Vocabulary Exercises	Workshop Exercise	Review and complete assignments.	30
10 /	Recall information Organize information	Workshop Exercise	Review and complete assignments.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Journal 3: Critical Thinking Paragraph 250 words	Workshop Exercise	Review and complete assignments.	30
12 /	**Unit 3: Medicine and Robots** Warm-up Lecture and Text Information Analysis Grammar and Vocabulary Exercises	Workshop Exercise	Review and complete assignments.	30
13 /	Recall information Organize information	Workshop Exercise	Review and complete assignments.	30
14 /	Journal 4: Critical Thinking Paragraph 250 words	Workshop Exercise	Review and complete assignments.	30
15 /	Post-Instruction assessment Reflections and course evaluation	Conferencing and review	Review and prepare for exam	30
16 /	Final Exam	Review & evaluate your progress	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

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Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading & Writing II B Advanced	1	622600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	REYNOLDS, Stephanie	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 4 sections; Reading Strategy, Vocabulary, Extensive Reading, and Writing.

(Reading Strategy) In-class activities and exercises to practice academic reading skills.

(Vocabulary) Personalized study sets, practice, and regular quizzes to measure growth of vocabulary understanding.

(Extensive Reading) Sustained silent-reading of 1 or more self-selected books at an independent reading level and reflection/discussion.

(Writing) In-class activities and exercises to practice grammar and organization of 2 genres of essays.

You need to keep all your assignments and handouts in a folder.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books:

Reserved books: Reading Explorer Level 4 9780357124734 and Reading Explorer Level 5 9780357124741

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
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	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading Strategy) In-class assignments will be given for each unit covered. 15% : (Vocabulary) 6 Vocabulary quizzes will be given in classes 2, 4, 7, 10, 13, 15. 15% : (Extensive Reading) In-class extensive reading assignments based on 1 or more self-selected books. Feedback and graded assignments will be returned in class and/or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	6%: 6 Grammar exercise activities, each will be graded on completion of the tasks and revision. 24%: Students will write 2 different genres of essays, which will be graded according to the following criteria: Writing Process, Task Achievement, Cohesion, and Coherence. Students will write 750-1000 words on each assignment in class or for homework after each lesson. Students will submit assignments online before the next class period. Verbal and written feedback will be given in writing conferences with the teacher during the following class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction: Students will read the syllabus. Reading: Unit 6A Reading skills and vocabulary exercises. Writing: Students will learn about the features and structure of an argument essay.	Exercises. Free writing on an assigned or self -selected topic.	Read the syllabus Complete assignments and turn in online before the next class.	30
2 /	Reading: Unit 6B Reading skills and vocabulary exercises. Writing: Students will brainstorm their own essay topics and write an outline. **Quiz 1** *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
3 /	Reading: Unit 6 Review & Quiz, Extensive Reading Introduction. Writing: Students will practice persuasive writing techniques. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
4 /	Reading: Unit 7A Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (1) **Quiz 2** *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
5 /	Reading: Unit 7B Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (2) *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
6 /	Reading: Unit 7 Review. Writing: Students will write introduction and conclusion paragraphs. *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
7 /	Reading: Unit 8A Reading skills and vocabulary exercises. Writing Students will review, discuss, and revise their argument essay. **Quiz 3** *Return graded assignment.*	Exercises. Discuss and revise essay.	Revise and complete unfinished assignments. Turn in online before the next class.	30
8 /	Reading: Unit 8B Reading skills and vocabulary exercises. Writing: Students will learn about the features and structure of a reaction/response essay. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
9 /	Reading: Unit 8 Review. Writing: Students will brainstorm their own essay topics and write an outline. *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30
10 /	Reading: Unit 9A Reading skills and vocabulary exercises. Writing: Students will practice reaction/response writing techniques. **Quiz 4** *Return graded assignment.*	Exercises. Discuss and write with a model.	Revise and complete unfinished assignments. Turn in online before the next class.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reading: Unit 9B Reading skills and vocabulary exercises. Writing: Students will write three body paragraphs (1). *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
12 /	Reading: Unit 9 Review. Writing: Students will write three body paragraphs (2). *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
13 /	Reading: Unit 10A Reading skills and vocabulary exercises. Writing: Students will write introduction and conclusion paragraphs. **Quiz 5** *Return graded assignment.*	Exercises. Write first draft.	Revise and complete unfinished assignments. Turn in online before the next class.	30
14 /	Reading: Unit 10B Reading skills and vocabulary exercises. Writing: Students will review, discuss, and revise their reaction/response essay. *Return graded assignment.*	Exercises. Discuss and revise essay.	Revise and complete unfinished assignments. Turn in online before the next class.	30
15 /	Reading: Unit 10 Review. Review: Students will review what was learnt in this course, reflect on their performance, and consider the next semester. **Quiz 6** *Return graded assignment.*	Review and evaluate your progress and understanding.		30
16 /	Final Exam	Review and evaluate your progress and understanding.	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Reading and Writing II B (Reading Strategy)	1	622600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TSUDA, Akihiro	Hakusanroku C 101.201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	The reading class is designed to help students become more efficient and effective in reading textbooks, required materials, and books. They will be able to improve vocabulary, comprehension, rate, and more reading skills. In the writing class, students will exercise advanced literacy skills to organize ideas for academic writing. Students will also be able to use written organizational skills to share ideas with others using English.
2	Writing	
3	Vocabulary	
4	Grammar	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

This course is divided into 2 sections; Reading Strategy and Writing.

(Reading Strategy)
Lecture, exercise
You need to submit all the handouts after a quiz.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: キクタン Advanced 6000,（アルク社）9784757422070「１０分間英語速読トレーニング Level 4」（桐原書店） 9784342156403
Reserved books: *Reading Power 2* ISBN: 9780138143886 / *Reading Power 3* ISBN: 9780132089036

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate about personal activities and events: work, school, daily life, and leisure. Can describe experiences and provide explanations, opinion, and plans. Can also ask questions, read simple instructions, and take directions.
Students can speak and write basic sentences in English to complete homework activities, to communicate with other students, and the teacher.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	(R) Students will be able to improve academic reading skills.
②	i	(R) Students will be able to improve vocabulary knowledge.
③	i	(R) Students will be able to improve speed reading.
④	f,g,i	(W) Students will be able to make sentences, paragraphs, and essays in response to issues and themes.
⑤	f,g,i	(W) Students will be able to use comparison, narration, persuasion, process, problem solution and description.
⑥	i	(W) Students will be able to practice writing by studying samples using templates.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		10	60	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	50	20	0	0	0	0	80
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Final exam (academic English proficiency test) includes TOEIC, EIKEN, and IELTS style questions.
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	30% : (Reading) Each quiz will be given after each reading skill. (Writing) A final draft of three (3) essays with your highest passing scores. 10% : Speed reading homework (Online) 10% : Vocabulary quiz (KIKUTAN) in Learning Session The results will be returned in the following week. 10%: In-class Critical Thinking Journals (150-250 words) Journals will be graded and returned in class the following week
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	(Reading) Complete the handouts and submit in time. The class handouts will be returned in class after a quiz. (Writing) Complete all exercises and drafts. Submit them at the end of each unit in class or online. Graded assignments will be returned in class or online in the following week.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can apply reading skills to understand academic and non-academic texts. Students can write and organize ideas logically.	Students can use reading skills to understand reading materials in and out of class. Students can express ideas based on a controlling idea.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Quiz (IELTS Strategies)	Lecture Exercise	Read the syllabus Study vocabulary	20
2 /	IELTS Training	Lecture Exercise	Speed Reading L1-2 Review reading skills	30
3 /	IELTS Training	Lecture Exercise	Speed Reading L3-4 Review reading skills	30
4 /	IELTS Training	Lecture Exercise	Speed Reading L5-6 Review reading skills	30
5 /	IELTS Training	Lecture Exercise	Speed Reading L7-8 Review reading skills	30
6 /	IELTS Training	Lecture Exercise	Speed Reading L9-10 Review reading skills	30
7 /	IELTS Training Quiz	Lecture Exercise	Speed Reading L11-12 Review reading skills	30
8 /	IELTS Writing Quiz	Lecture Exercise	Speed Reading L13-14 Review reading skills	30
9 /	Skimming	Lecture Exercise	Speed Reading L15-16 Review reading skills	30
10 /	Skimming Quiz	Lecture Exercise	Speed Reading L17-18 Review reading skills	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Guessing the meaning from Context	Lecture Exercise	Speed Reading L19-20 Review reading skills	30
12 /	Guessing the meaning from Context Quiz	Lecture Exercise	Speed Reading L21-22 Review reading skills	30
13 /	Making Inference	Lecture Exercise	Speed Reading L23-24 Review reading skills	30
14 /	Making Inference	Lecture Exercise	Review reading skills	30
15 /	Making Inference Quiz	Lecture Exercise	Review reading skills	30
16 /	Final Exam	Review and evaluate your progress and understanding	Review the final exam	30
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking II B (Intermediate)	1	622700	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAYLOR, James	Hakusanroku C. 101-201		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and to be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies; describe people, things, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for the students to be able to exercise literacy skills including, speaking, listening, and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through 3 chapters of the textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 4 (Advanced): National Geographic Learning by (Eds). Lewis Lansford, Daniel Barber, Amanda Jefferies.* ISBN: 978-1-337-27715-0.

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Lower-intermediate/intermediate English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	h, d	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to set goals, make agree and disagree statements, and ask questions.
⑤	g, f, i	Students will be able to discuss past events and ask for, and make recommendations.
⑥	d, f	Students will be able to discuss time, explain causes, and give reasons.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be Proficiency Quizzes in lessons 7 and 14. Quizzes will use IELTS-style questions. Quizzes are designed to show the progress of students' English ability during the semester. Quizzes will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will do grammar/vocabulary activities in each unit, which will be graded and returned with feedback by the following lesson in class. Each unit will contain a listening activity. This will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	There will be at least one speaking activity in each unit. Speaking activities will be graded and returned with feedback by the following lesson in class. Students will complete a spoken reflection exercise at the end of each unit. Reflections will be graded and returned with feedback by the following lesson in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will work efficiently to complete tasks on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will work somewhat efficiently to complete tasks on time and to a reasonable standard. Students will respond to most feedback appropriately and occasionally seek help when necessary.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Unit 4: Discovery Grammar/Vocabulary	Syllabus; stations; textbook; worksheets; online activities; individual, pair, and group activities.	Review the syllabus.	30
2 /	Unit 4: Discovery Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
3 /	Unit 4: Discovery Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
4 /	Unit 4: Discovery Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
5 /	Unit 6: Education Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
6 /	Unit 6: Education Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
7 /	Progress Quiz 1	Test questions.	Review the test questions.	30
8 /	Unit 6: Education Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
9 /	Unit 6: Education Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
10 /	Unit 8: The Real Me Grammar/Vocabulary	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Unit 8: The Real Me Grammar/Vocabulary & Listening	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
12 /	Unit 8: The Real Me Listening & Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete unfinished classwork and submit before the next lesson.	30
13 /	Unit 8: The Real Me Speaking & Reflection	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Complete the reflection and submit before the next lesson.	30
14 /	Progress Quiz 2	Test questions.	Review the test questions.	30
15 /	Review & Catch-up	End of course questionnaire; self-assessment activities.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Listening and Speaking IIB	1	622700	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	STEVENSON, Ian	Hakusanroku C.: 101.201		Monday: 4:30 – 5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Listening	Students will develop oral communication abilities for classes taught in academic English and be able to function socially in an English-speaking environment. Students will be able to talk about things they like/dislike and their hobbies and describe people, events, and places using a variety of vocabulary and grammatical structures. Also, students will improve their understanding of topics and vocabulary used in their classes.
2	Speaking	
3	Communication	
4	Study skills	
5	Presentation skills	

Course Description and Expectations for Students (10.5pt)

This course emphasizes the use of basic English language for oral communication. Its main purpose is for students to be able to exercise literacy skills, including speaking and listening and notetaking for learning in their academic classes. Students will also be able to interact with others using English. This course will be taught through the last 7 units of a textbook.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: *Perspectives 4 (Advanced): National Geographic Learning* by (Eds). Lewis Lansford, Daniel Barber, Amanda Jefferies. ISBN 978-1-337-27715-0

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English listening and speaking ability.

No.	Program Objectives	Target Abilities for Students (9pt)
①	f	Students will be able to greet and introduce themselves to new acquaintances and talk about emotions.
②	f	Students will be able to discuss and give opinions about hobbies, sports, and travel.
③	d, h	Students will be able to discuss and describe food, photos, work, shopping, and the human body.
④	f, i	Students will be able to recognize introductions from new acquaintances and talk about emotions.
⑤	g, f, i	Students will be able to recognize other's opinions about hobbies, sports, and travel.
⑥	d, f	Students will be able to recognize speech about food, photos, work, shopping, and the human body.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	20	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	5	5	0	0	0	40
	Ability to think, reason and create	0	0	5	5	0	0	0	10
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	30	5	10	0	0	0	45
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	レ	Quizzes will be based on the IELTS exam and will be given 2 times over the semester. Quizzes will be graded and returned within two weeks.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Reports	①	レ	Classwork tasks drawn from each unit will be graded as reports. Reports will be graded and returned with feedback by the following lesson.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Presentations	①	レ	Students will complete an oral exercise (recorded) throughout the units of the textbook, which will be graded as a presentation. Presentations will be graded and returned with feedback by the following lesson.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will collaborate effectively to complete projects on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will collaborate to complete projects to a reasonable standard. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introductions: Teacher, Syllabus, Classroom tools and expectations. Content Part 1: Textbook Units 4/5 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
2 /	Content Part 1: Textbook Units 4/5 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
3 /	Content Part 1: Textbook Units 6/7 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
4 /	Content Part 1: Textbook Units 6/7 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
5 /	Content Part 1: Textbook Units 4/5/6/7 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
6 /	Content Part 1: Textbook Units 4/5/6/7 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
7 /	IELTS Milestone quiz 1: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
8 /	Content Part 1: Textbook Units 8/9 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
9 /	Content Part 1: Textbook Units 8/9 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
10 /	Content Part 1: Textbook Unit 10 Focus: Vocabulary and Grammar	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Content Part 2: Textbook Unit 10 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
12 /	Content Part 2: Textbook Units 8/9/10 Focus: Authentic Listening and Speaking	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
13 /	Content Part 2: Textbook Units 8/9/10 Focus: Presentation and Make-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
14 /	IELTS Milestone quiz 2: IELTS Test	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz	30
15 /	Review and Catch-up	Stations; textbook; worksheets; online activities; individual, pair, and group activities.	Completion of unfinished classwork and preparation for quiz. Completion of end of term questionnaires	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	English Certification Training	1	622900	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	UTSUNOMIYA, Takako STEVENSON, Ian	Hakusanroku C: 101.201		TBD

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Reading	Students will develop their abilities in the 4 skills assessed by IELTS, through a variety of activities. These activities include, but are not limited to, exam preparation, exercises, worksheets, projects, etc.
2	Writing	
3	Listening	
4	Speaking	
5	IELTS	

Course Description and Expectations for Students (10.5pt)

Demonstrating a range of English language abilities is important for students' future goals including universities, colleges, and workplaces around the world. This course covers the specific skills and tasks for IELTS preparation: Listening, Reading, Writing, and Speaking. Students will participate in sessions towards improving students' accuracy and fluency in their language usage through in and out of class activities, assignments, and projects.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Ss will be able to analyze various forms of visual data, explaining and comparing key points.
②	f, h, i	Ss will be able to brainstorm a topic and develop a well-structured essay.
③	h	Ss will be able to develop test-taking skills with regard to a range of reading comprehension and vocabulary question types.
④	a, i, g, h	Ss will be able to design and carryout a series of benchmark tasks.
⑤	a, i, g, h	Ss will be able to combine the tasks to complete a self-designed project.
⑥	a, i, g, h	Ss will be able to develop test taking abilities through tasks and activities.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	25	0	25	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	10	5	0	0	0	15
	Ability to think, reason and create	0	0	10	5	0	10	0	25
	Collaboration and leadership	0	0	10	5	0	0	0	15
	Announcement / Expression / Communication	0	0	10	5	0	10	0	25
	Attitude and motivation for learning	0	0	10	5	0	5	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Reading & Writing (25%) In-class worksheets or assignment handouts for class preparation and review. Feedback will be given in the next class session. Listening & Speaking (25%) In class activities for practice, review and preparation. Feedback will be given in class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		Listening & Speaking (25%) Plan, design and complete a series of bench marked activities to demonstrate achievement and learning. Feedback will be given in class.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Reading & Writing (25%) Writing about visual data and essay writing in a time limit. Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Ss will significantly improve their skills in Reading, Writing, Listening and Speaking. They will demonstrate their improvement via a variety of tasks and assessments.	Ss will improve their skills in Reading, Writing, Listening and Speaking. They will demonstrate their improvement via a variety of tasks and assessments.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Reading and Writing #1	This includes but is not limited to: Worksheets, Exercises, etc.	Review: Ss will review previously acquired Reading and Writing skills and abilities	30
2 /	Listening and Speaking #1	This includes but is not limited to: Discussion, Pair work, etc.	Ss will review previously learned Listening and Speaking skills	30
3 /	Reading and Writing #2	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
4 /	Listening and Speaking #2	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
5 /	Reading and Writing #3	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
6 /	Listening and Speaking #3	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
7 /	Reading and Writing #4	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
8 /	Listening and Speaking #4	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
9 /	Reading and Writing #5	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
10 /	Listening and Speaking #5	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reading and Writing #6	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
12 /	Listening and Speaking #6	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
13 /	Reading and Writing #7	This includes but is not limited to: Worksheets, Exercises, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
14 /	Listening and Speaking #7	This includes but is not limited to: Discussion, Pair work, etc.	Preview: Ss will practice skills and topics studied in the previous class Review: Ss will review activities completed in class	30
15 /	Review, Wrap up and Reflect	Final Assessment: TBD		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Overseas English Program	2	622800	Intensive	Experiment / Practice

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	Akihiro TSUDA	Hakusanroku C. 101-201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Practical English proficiency	Participation in classes and extracurricular activities abroad is designed to cultivate practical English proficiency applicable across diverse facets of daily living. Moreover, through engagement with local inhabitants and international peers from diverse backgrounds, participants are afforded opportunities for cultural exchange, fostering a global perspective and refining interpersonal communication competencies.
2	Daily living	
3	Cultural exchange	
4	Global perspective	
5	Interpersonal communication	

Course Description and Expectations for Students (10.5pt)

Experiential Learning
Maximize the benefits of your study abroad experience by developing the confidence to communicate effectively in both spoken and written English. This program is particularly suited for students seeking to engage in academic language studies.

Immersion Lessons
General language lessons focus on reinforcing grammar and expanding vocabulary through an integrated approach combining digital tools and interactive classroom activities. Additionally, project-based sessions allow you to enhance your learning and communication skills through hands-on, interest-driven activities tailored to your personal goals.

This course is conducted through EF(Education First).
There are subjects like General Language and SPIN, and in the General course, there are classes for 17 hours per week.
Extracurricular activities are also added.
The requirement for earning credits is to receive a completion certificate from the EF program.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

The participation requirement for this course is that there are no unearned credits for subjects in the first year of study.
Students must have passed all courses in the first year of study.

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	Students will be able to improve their English communication skills
②	e	Students will be able to deepen their cultural understanding
③	i	Students will be able to pursue academic achievements
④	d	Students will be able to build an international network
⑤	c	Students will be able to enhance their personal growth and self-expression skills
⑥	g	Students will be able to acquire problem-solving skills in cross-cultural contexts

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	0	0	0	0
	Ability to think, reason and create	0	0	0	0	0	0	0	0
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class managemen

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科目名	単位	科目コード	開講時期	授業形態
国際理工学科 一般科目 選択	歴史文化II（日本語）	1	623700	前学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	上田　清史	白山麓C 101.201		月曜日・木曜日 16：30 - 17：30

授業科目の学習教育目標

キーワード		学習教育目標
1	白山地域	この授業は白山地域の歴史文化とこの地域の事象から見た日本歴史と文化を探求する。またその自然環境や地域社会に関心を持ち、解決方法を提案するために、地域の現状や問題点を正確に把握する。さらに白山地域の学習を追求することにより、学生は自らの行動の礎となる理念を養う。
2	歴史文化	
3	自然環境	
4	地域社会	
5	震災	

授業の概要および学習上の助言

地域社会はさまざまな構成要素によって成り立っている。学生が学び生活する白山地域の歴史，文化，信仰，生活習慣，産業，地形，自然などを総合的に学ぶことにより，地域社会への興味・関心を高め，地域とのふれあいを意識し，地域社会と協働する取り 組みに向けた基礎力を身につける。また，地域社会のテーマを学習することを通して，学習の方法を修得することにより，多様な 社会やそこに存在する問題にもアプローチできるスキルを身につけ，社会的課題解決に向けての使命感を養う。

授業内容について、理解が不十分と感じるところがあれば質問すること。講義のメモを取り各自でノートを補完すること。

【教科書および参考書・リザーブドブック】
教科書：ハンドアウト
参考書：
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

歴史文化IA
歴史文化IB

№	教育目標(DP)（記号表記）	学生が達成すべき行動目標
①	b, e	白山地域の持つ歴史や文化の特色を理解し、共有することができる
②	b, e	白山地域の自然環境や地域社会に関心を持ち現状を理解することができる
③	b, e	白山地域の事象から日本の歴史・文化を考え理解する事ができる
④	a, b, e,	地域社会の持つ問題点を正確に捉えることができる
⑤	a, b, g, h	地域社会の持つ門題点を解決する方法を考える事ができる
⑥	b, c, e, i	白山地域の学習を通じて、自らの行動の礎となる理念を養うことができる

達成度評価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作品	ポートフォリオ	その他	合計
総合評価割合		20	0	20	40	0	20	0	100
総合力指標	知識を取り込む力	8	0	5	10	0	5	0	28
	思考・推論・創造する力	4	0	8	15	0	5	0	32
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	8	0	7	10	0	5	0	30
	学習に取組む姿勢・意欲	0	0	0	5	0	5	0	10

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評 価 方 法	行動目標		評 価 の 実 施 方 法 と 注 意 点
試 験	①	✔	定期試験。論述式問題の答案を４つの基準から評価する。①「歴史の流れ」に対する理解度。②解答の内容における史実の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
クイズ 小テスト	①		
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①	✔	５つの課題：効果的な「考え方」や「書き方」などを説明する。 課題は授業で配布され次の授業の始まりに提出する。翌週の授業までに採点され返却される。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①		二回のグループ発表：学期中に１回と学期末に１回。学生は教員と相談した上で白山地域の問題点 と解決策に関する発表を行う。 グループ発表の次の点を評価する：内容、スタイル（方法）、パワーポイントなどの補助資料、資料（史料）の提示、各発表者がグループ内で果たした役割など。翌週の授業までに発表の評価を受 ける。（20%＋20%＝40%）
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
作 品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	✔	ポートフォリオにはリフレクションペーパー・配布資料（メモを取ること）・５つの課題・発表の 補助資料（２点）や関係のある場合はその他を添えること。これらを「学習に取り組む姿勢・意 欲」などと総合的に評価する。これは学期末に提出する。（20%）
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
白山地域の持つ歴史や文化の特色を理解し、共有することができる 白山地域の自然環境や地域社会に関心を持ち現状を理解することができる 白山地域の事象から日本の歴史・文化を考え理解する事ができる 地域社会の持つ問題点を正確に捉えることができる 地域社会の持つ門題点を解決する方法を考える事ができる 白山地域の学習を通じて、自らの行動の礎となる理念を養うことができる	白山地域の持つ歴史や文化の特色に触れ学ばせていただく。 白山地域の自然環境や地域社会と出会い現状と向き合う。 白山地域の深い歴史文化の一端に触れさせてもらう。 地域社会の持つ問題点の一部を教示していただく。 地域社会の持つ問題点の一部に真摯に取り組む姿勢を持つ。 白山地域の学習を通じて、困難な問題に取り組む心を養う。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	白山地域の位置づけ：白山地域の地理的な位置づけを理解する。 学生達が生活する白山地域の地形、自然を学ぶことにより、地域社会、自然環境の興味関心を高めるとともに、 地域や自然を敬う気持ちを涵養する	白山地域の地理的な位置づけを講義する	白山地域の地理的な位置づけを調べる 授業内容を確認する	30 15
2 ／	白山地域の自然と環境① 白山地域の自然環境の特色を理解する	白山地域の地形・資源について講義する 課題①を配布する	白山地域の地形を調べる。 授業内容を確認する	30 15
3 ／	白山地域の自然と環境② 白山地域の自然環境の特色を理解し、自然環境保護問題について考える	白山の動植物と自然環境保護の取り組みについて講義する 課題①を提出する	白山の動植物について調べる 授業内容を確認する。	30 15
4 ／	白山地域の信仰① 白山地域を通じて日本の信仰を理解する 白山地域での信仰の在り方を学び、地域の宗教や信仰の多様性や独自性を知る。 日本の「中世」と山岳信仰を通して「日本人の宗教観」を考える	白山の信仰について講義する	白山信仰について調べる 授業内容を確認する	30 15
5 ／	白山地域の信仰② 白山山岳信仰と東アジア	白山と他の地域の信仰について講義する 課題②を配布する	白山信仰と他の地域の信仰を比較する 授業内容を確認する。	30 15
6 ／	白山地域の生活・文化：白山地域の人々の生活や文化を理解する 山岳部での人々の生活を考える	白山地域の人々の生活や文化について講義する 課題②を提出する	白山地域の人々の生活や文化を調べる 授業内容を確認する	30 15
7 ／	中間・発表 白山地域の持つ問題点 白山地域の持つ問題点をグループ討議で明らかにする	白山地域を総合的に学習した 上で、グループ討議により地域の持つ問題点及び解決策を探る。	各自で問題点を考える 発表の準備をする	60 45
8 ／	白山地域から見る日本の歴史① 白山地域から日本の戦国社会を考える 白山地域と日本全体の歴史を比較しながら学ぶことにより、地域の事象を広い視点で捉える方法を学ぶ。また、場所や時代の違いによる、多様な価値観や社会の変遷を知る。	日本の戦国社会について講義する。 課題③を配布する 課題③を提出する	戦国日本について調べる 授業内容を確認する	30 15
9 ／	白山地域から見る日本の歴史② 白山地域から日本の近世社会を考える 白山と城下町・金沢の成立とその重要性について	日本の近世社会について講義する 課題④を配布する	近世の日本について調べる 授業内容を確認する	30 15
10 ／	白山地域から見る日本の歴史③ 白山地域から日本の近・現代社会を考える 近代化の抱える諸問題を通して	日本の近・現代社会について講義する 課題④を提出する	近現代の日本について調べる 授業内容を確認する	30 15

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	白山地域の産業 白山地域で行われる産業について理解する。 白山地域の産業や生活・文化を通して、地域の持つ課題や文化の多様性を知る	白山地域で行われている産業について講義する	白山地域の産業について調べる。 授業内容を確認する	30 15
12 ／	石川県における自然災害について考える 令和六年・能登大震災を中心に	能登大震災について講義する 課題⑤を配布する	能登大震災について調べる 授業内容を確認する	30 15
13 ／	震災後の石川県の復興について考える	被災地の復興について講義する 課題⑤を提出する	復興について調べる 授業内容を確認する	30 15
14 ／	白山地域の抱える諸問題を通して今後の日本を考える	この地域の現状を通して今後の日本が直面する諸問題について講義する	現在と今後の日本について考える。 授業内容を確認する	60 45
15 ／	問題点と改善案の発表① 問題点・解決策を発表し、他の人に的確に伝える	グループの解決策を発表し、他のグループ発表の内容 について検討する	各自で解決策を考え、発表の準備を行う 他の発表の内容について考える	60 45
16 ／	定期試験	学生の科目に対する全体 的な理解を評価する	授業内容を学習する 試験内容・結果を確認する	60 15
17 ／	自己点検			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	History and Culture II (English)	1	623800	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	UEDA, Kiyoshi	Hakusanroku.C 101.201		Monday and Thursday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Hakusan Region	This course guides students in exploring the history/culture of Hakusan region and Japanese history/culture via regional phenomena. It leads them to develop an interest in the natural environment and local communities to accurately assess their current circumstances and issues in hope of suggesting solutions. Students also learn to nurture a set of principles as a foundation for their actions by studying the region.
2	History and Culture	
3	Nature and Environment	
4	Local Community	
5		

Course Description and Expectations for Students (10.5pt)

Local communities consist of a number of components. This course will guide students in learning basic skills to cooperate with the various local communities of the Hakusan region by comprehensively exploring the history, culture, religion, livelihood, industry, geography, and natural environment of Mt. Hakusan where they live and learn. The course will also nurture a sense of mission in finding solutions for social issues as students reach out to diverse communities in the region.

Students are urged to ask questions if they do not fully understand the contents of lectures. They should complement their notes by taking memos during the lectures.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Handout
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

History and Culture I A
History and Culture I B

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, e	Students will understand the characteristics of the history/culture of Hakusan region and share them.
②	b, e	Students will develop an interest in the natural environment and local communities of Hakusan region, thus learning to understand their present circumstances.
③	b, e	Students will be able to think about/understand Japanese history/culture via the phenomena of Hakusan region.
④	a, b, e	Students will be able to grasp issues of the local communities accurately.
⑤	a, b, g, h	Students will be able to develop solutions to the problems of local communities.
⑥	b, c, e, i	Students will nurture a set of principles as a foundation for their actions by studying Hakusan region.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		20	0	20	40	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	8	0	5	10	0	5	0	28
	Ability to think, reason and create	4	0	8	15	0	5	0	32
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / expression / communication	8	0	7	10	0	5	0	30
	Attitude and motivation for learning	0	0	0	5	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✔	Final Examination. Answers to essay-type questions will be evaluated on the basis of 4 criteria. First, a level of comprehension of the "course of history." Second, the accuracy of historical facts in the contents of an answer. Third, the relevance and logic of answers to the examination question. Fourth, concise sentences and good textual structure. (20%)
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✔	There will be five assignments; the instructor will explain "how to think" and "how to write" effectively. Each assignment will be distributed in class and submitted at the beginning of the next class. Assignments will be evaluated and returned the following week. (20%)
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Presentations	①		There will be two presentations: one in the middle of the semester and one at the end of the semester. Students will make group presentations on issues challenging the Hakusan region and solutions to them in consultation with the instructor. Group presentations will be evaluated on the following points: contents, style (method), supporting material such as power-point presentations, the indication of sources, the role of an individual presenter for the group, etc. The presentation will be evaluated and returned the following week. (20％＋20％＝40％)
	②		
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✔	Portfolio must include reflection paper, all handouts, 5 assignments, supporting material for one presentation, and others when relevant. Work will be comprehensively evaluated, together with the student's "volition and attitudes toward learning." Students will submit the portfolio with a reflection paper by the end of the semester. (20%)
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can understand the characteristics of the history/culture of Hakusan region and share them. Students can show an interest in the natural environment and local communities of Hakusan region, thus understanding their present circumstances. Students can think about/understand Japanese history/culture via the phenomena of Hakusan region. Students can grasp issues of the local communities. Students can develop solutions to the problems of local communities. Students can nurture a set of principles as a foundation for their actions by studying Hakusan region.	Students learn the characteristics of the history/culture of Hakusan region by being exposed to them. Students can encounter the natural environment and local communities of Hakusan region and face present circumstances. Students can experience a part of the profound history of Hakusan region. Students can seek guidance in identifying some of these issues. Students can work on some of the issues with which the local communities struggle. Students can nurture their hearts (kokoro) to challenge difficult problems through the study of Hakusan region.

Course Schedule

* The standard time required for the specified assignment is provided in the "Time" column of the assignments. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Geographical positioning of Hakusan region, explaining the geographical location of Hakusan region. Students will develop an interest in the natural environment and a sense of respect for Hakusan region and its nature by learning about the geography and nature of the region where they reside.	Lecture on the geographical location of Hakusan region.	Study the geographical location of Hakusan region. Review course content.	30 15
2 /	Nature and environment of Hakusan region. ① Students will understand particularities of natural environment of Hakusan region.	Lecture on the geography and resources of Hakusan region. Distribute assignment ①	Study the geography of Hakusan region. Review course content.	30 15
3 /	Nature and environment of Hakusan region. ② Students will understand particularities of natural environment of Hakusan region and consider the issue of preserving the natural environment.	Lecture on plants and animals in Hakusan region and preservation of natural environment. Submit assignment ①	Study plants and animals in Hakusan region. Review course content.	30 15
4 /	Worship in Hakusan region. ① Students will study modes of worship in Hakusan region and understand the diversity and characteristics of religion/worship in the region. Students will understand “Japanese attitudes towards religion” through Japan’s medieval period and mountain worship.	Lecture on Hakusan worship.	Study Hakusan worship. Review course content.	30 15
5 /	Worship in Hakusan region. ② Students will understand Japanese religion through the history of Hakusan region, Hakusan mountain worship and East Asia.	Lecture comparing the worship of Hakusan with other areas. Distribute assignment ②	Compare the worship of Hakusan with other areas. Review course content.	30 15
6 /	Livelihood and culture of Hakusan region. Students will understand livelihood and culture of the people of Hakusan region.	Lecture on livelihood and culture of Hakusan region. Submit assignment ②	Study the cultural heritage of Hakusan region. Review course content.	30 15
7 /	Presentation (1) Regional issues in Hakusan. Highlight the issues faced by Hakusan region and develop solutions through group discussion.	Explore a solution for the issues faced by Hakusan region through discussion. Distribute assignment ③	Students examine regional issues. Prepare presentations. Summarize the issues through group discussion。	60 45
8 /	Japanese history from the standpoint of Hakusan region. ① Students will learn how to put the local phenomenon of Hakusan region in a broader perspective. Study the diversification of value systems and social transformations in different locations and time-periods. Students will understand Sengoku society of Japan through the history of Hakusan region.	Lecture on Sengoku society in Japan. Submit assignment ③	Study Sengoku society of Japan. Review course content.	30 15
9 /	Japanese history from the standpoint of Hakusan region. Studtens will understand early-modern society of Japan through the history of Hakusan region, including Hakusan and its significance to establishment of Kanazawa as castle town.	Lecture on early-modern society of Japan. Distribute assignment④	Study early-modern Japan. Review course content.	30 15
10 /	Japanese history from the standpoint of Hakusan region. Students will understand modern/contemporary society of Japan through the history of Hakusan region and various issues of modernization	Lecture on modern/ contemporary society of Japan. Submit assignment ④	Examine modern/ contemporary Japan. Review course content.	30 15

Course Schedule

* The standard time required for the specified assignment is provided in the "Time" column of the assignments. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Industry in Hakusan region. Students will understand local industries of Hakusan region. Learn the issues and understand the cultural diversity of Hakusan region by studying its industry, livelihood, and culture.	Lecture on local industries of Hakusan region.	Study industries in the Hakusan region. Review course content.	30 15
12 /	Natural disasters in Ishikawa prefecture: the Noto Great Earthquake of 2024.	Lecture on the Noto Great Earthquake Distribute assignment⑤	Study the Noto Great Earthquake Review course content	30 15
13 /	Reconstruction of Ishikawa prefecture after the earthquake.	Lecture on disaster-stricken areas Distribute assignment⑤	Study the reconstruction Review course content	30 15
14 /	Predicting Japan’s future by examining various issues the Hakusan region is facing.	Lecture on various issues Japan will face in the future through the current conditions of this region.	Examine Japan today and in the future. Review course content	30 15
15 /	Presentation on regional issues and improvement plans. Make a presentation on an issue (or issues) and offer a solution.	Present a group solution and assess the content of other groups’ presentations.	Each student explores a solution. Come up with a group solution. Prepare a group presentation. Assess the content of other groups’ presentations critically.	60 45
16 /	Final Exam	Evaluate students’ overall understanding of the subject.	Study overall course content. Review the content of the exam.	50 10
17 /	Self-check			

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	社会科学（日本語）	1	624000	後学期	講義／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	上田　清史	白山麓 101.201		月曜日・木曜日 16：30―17：30

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	近現代史	世界の色々な地域における諸事象を地理的かつ歴史的観点からとらえることによって学生にとっての「今」をより理解できる「物の見方」を養ってゆく。将来日本や海外で活動するために諸地域に関する基礎知識を習得するとともに、これらの地域と日本の歴史的関わりについても学んでゆく。
2	国際関係・国際情勢	
3	地理	
4	紛争	
5	平和	

授業の概要および学習上の助言

この授業では「現在」の出来事の成り立ちや原因を究明し理解するため「過去」にさかのぼり考察する。同時に「現在」と「過去」をより理解するために世界各地の地理的条件に関する基本知識を身につけてゆく。またこれらの地理的条件から「人間はなぜ歴史から学ばず同じこと（成功と失敗）を繰り返すのか？」という大きな問いにも考えをめぐらしてゆく。これによって現在の国際関係を動かす力学の一端に触れてゆく。学生には貴重な情報を提供する資料としての地図を「読む」ことを始め、同時に国内外のメディア報道から世界各地の情勢を知るなかで、根拠が示された歴史書を紐解くことが日々の習慣となるように努力を始めてほしい。

【教科書および参考書・リザーブドブック】
教科書：配布プリント
参考書：
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

日本語を読み書きする能力（日本の高校生レベル）
歴史文化IAと歴史文化IB
歴史文化IIA

No.	教育目標(DP) （記号表記）	学生が達成すべき行動目標
①	b,e	東アジアにおける国際関係を歴史的かつ地理的観点から説明することができる。
②	b,c	「インド」を歴史的かつ地理的観点から理解し今後の国際社会での役割を説明できる
③	b,c	「中近東」を歴史的かつ地理的観点から理解し現在に続く諸問題を説明できる。
④	a,b,e	旧・大英帝国とその遺産を歴史的かつ地理的観点から理解し現在の国際社会の土台を説明することができる。
⑤	a,b,g,h	ロシアと周辺国との関係を歴史的かつ地理的観点から理解し今後の国際社会の動向を説明できる。
⑥	e,c,e,i	北極を歴史的かつ地理的に理解し今後の国際社会に与える影響を説明できる。

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		20	20	20	20	0	20	0	100
総合力指標	知識を取り込む力	8	8	8	5	0	5	0	31
	思考・推論・創造する力	4	4	0	8	0	5	0	29
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	8	8	7	7	0	5	0	35
	学習に取組む姿勢・意欲	0	0	0	0	0	5	0	5

総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①	✔	定期試験。論述式問題の答案を四つの基準から評価する。①「歴史の流れ」と「地理的条件」に対する理解度。②解答に内容における史実と事実（ファクト）の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
クイズ 小テスト	①	✔	中間テスト。論述式問題の解答を四つの基準から評価する。①「歴史の流れ」と「地理的条件」に対する理解度。②解答の内容における史実と事実（ファクト）の正確性。③試験問題に対する解答の関係性と論理性。④簡潔な文と文章構成。翌週の授業までに採点され返却される。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
レポート	①	✔	５つの課題：効果的な「考え方」や「書き方」などを指導する。課題は次の授業の始まりに提出する。翌週の授業までに採点され返却される。（20%）
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①		１回の発表：教員と相談した上で「歴史の流れ」と「地理的条件」に関するテーマを決定する。個人発表の次の点を評価する：内容、スタイル（方法）、パワーポイントなどの補助資料、資料（史料）の提示など。翌週の授業までに発表の評価を受ける。（20%）
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①	✔	ポートフォリオにはリフレクションペーパー・配布資料（メモを取ること）・５つの課題・中間テスト・発表の補助資料（１点）や関係のある場合はその他を添えること。これは学期末（最後の授業）に提出する。（20%）
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
- 東アジアにおける国際関係を歴史的かつ地理的観点から説明することができる。 - 「インド」を歴史的かつ地理的観点から理解し今後の国際社会での役割を説明できる。 - 「中近東」を歴史的かつ地理的観点から理解し現在に続く諸問題を説明できる。 - 旧・大英帝国とその遺産を歴史的かつ地理的観点から理解し現在の国際社会の土台を説明することができる。 - ロシアと周辺国との関係を歴史的かつ地理的観点から理解し今後の国際社会の動向を説明できる。 - 北極を歴史的かつ地理的に理解し今後の国際社会に与える影響を説明できる。	- 東アジアにおける国際関係の歴史とその地理的条件についての基礎知識を学ぶ。 - 現在の「インド」に至る歴史とその地理的条件についての基礎知識を学ぶ。 - 「中近東」の歴史とその地理的条件についての基礎知識を学ぶ。 - 旧・大英帝国の歴史とその地理的条件の基礎知識を学ぶ。 ロシアと周辺諸国の歴史とその地理的条件の基礎知識を学ぶ。 ―北極の歴史や地理的条件の基礎知識を学ぶ。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	イントロダクション	地理・歴史・国際関係について講義する。	ノート（プリント）を見直して補完する。	30 10
2 ／	中国	中国が直面する諸問題について講義する。 課題①を配布する	ノート（プリント）を見直して補完する。	30 10
3 ／	朝鮮半島	朝鮮半島をめぐる諸問題について講義する。 課題①を提出する	ノート（プリント）を見直して補完する。	30 10
4 ／	東南アジア	多様性のある東南アジア地域の抱える諸問題について講義する。 課題②を配布する	ノート（プリント）を見直して補完する。	30 10
5 ／	南アジア：「インド」を中心に	インドの重要性と諸問題について講義する。 課題②を提出する	ノート（プリント）を見直して補完する。	30 10
6 ／	「中近東」	中近東の重要性と諸課題について講義する。 課題③を配布する	ノート（プリント）を見直して補完する。	30 10
7 ／	アフリカ大陸	アフリカ大陸の歴史とこの大陸が持つ可能性と諸問題について講義する。 課題③を提出する	ノート（プリント）を見直して補充する。	30 10
8 ／	植民地政策の遺産：旧・大英帝国を中心に	旧・大英帝国が残した遺産についていくつかの国の例を挙げて講義する。	ノート（プリント）を見直して補完する。	60 10
9 ／	ロシアと東ヨーロッパ（バルカン半島を含む） 中間テスト（60分）	ロシアの対外政策と周辺国との関係について講義する。	ノート（プリント）を見直して補完する。 授業内容を学習する。 試験内容・結果を確認する	30 10
10 ／	北極	北極をめぐる諸問題について講義する。 課題④を配布する	ノート（プリント）を見直して補完する。	30 10

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	北・南アメリカ大陸	両大陸の関係性や諸問題について講義する。 課題④を提出する	ノート（プリント）を見直して補完する。	30 10
12 ／	中央アジア	中央アジアをめぐる諸問題について講義する。	ノート（プリント）を見直して補完する。	30 10
13 ／	太平洋諸島	太平洋諸島をめぐる諸問題について講義する。 課題⑤を配布する	ノート（プリント）を見直して補完する。	30 10
14 ／	「宇宙」	「宇宙」という領域をめぐる大国の思惑について講義する。 課題⑤を提出する	ノート（プリント）を見直して補完する。	30 10
15 ／	発表	内容・発表の態度・関係資料の作成などを評価する。	発表の準備をする。	60 10
16 ／	定期試験	定期試験（50分）	授業内容を学習する。 試験内容・結果を確認する。	50 10
17 ／	試験返却（自己点検）			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Social Science (English)	1	624100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	UEDA, Kiyoshi	Hakusanroku 101.201		Mondays /Thursday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Modern/Contemporary History	This course is designed to help students develop a way of looking at things "now" by grasping various phenomena occurring in various regions of the world from both geographical and historical perspectives. To be able to perform in Japan, as well as abroad in the future, students will acquire basic knowledge on various regions and study Japan's historical involvement in those regions.
2	International Relations/Affairs	
3	Geography	
4	Conflict	
5	Peace	

Course Description and Expectations for Students (10.5pt)

This course was designed to explore inquire into the origins and development of "present" events by tracing their past. To understand "present" and "past," students will also obtain basic knowledge about geographical conditions of various parts of the world. Based on those geographical conditions, the course will consider broader questions: Why do humans not learn from history? Why do they repeat the same things, both success and failure? By so doing, students will become familiar with some aspects of dynamics mobilizing international relations today. Students will be encouraged to start "reading" a map as a reference providing invaluable information. Students will become familiar with history, while continually updating their knowledge about current affairs in various areas of the world.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to read and write English language (at the level of high-school students)
History and Culture IA (English) and History and Culture IB (English)
History and Culture IIA (English)

No.	Program Objectives	Target Abilities for Students (9pt)
①	b,e	Students will be able to explain international affairs of East Asia from historical and geographical perspectives.
②	b,c	Students will be able to understand India and explain its role in the international community in the future from historical and geographical perspectives.
③	b,c	Students will be able to understand the Middle East and explain its various problems from historical and geographical perspectives.
④	a,b,e	Students will be able to understand the former British Empire and its legacies as the foundation of the international community today from historical and geographical perspectives.
⑤	a,b,g,h	Students will be able to understand Russia and its neighboring countries from historical and geographical perspectives.
⑥	e,c,e,i	Students will be able to explain the North Pole from historical and geographical perspectives and understand its future impact on the international community.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		20	20	20	20	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	8	0	5	5	0	5	0	31
	Ability to think, reason and create	4	4	8	8	0	5	0	29
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / expression / communication	8	8	7	7	0	5	0	35
	Attitude and motivation for learning	0	0	0	0	0	5	0	5

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✔	Final Examination. Answers to essay-type questions will be evaluated on the basis of 4 criteria. First, a level of comprehension of the "course of history" and "geographical condition." Second, the accuracy of historical facts in the contents of an answer. Third, the relevance and logic of answers to the examination question. Fourth, concise sentences and good textual structure. (20%)
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Quizzes	①	✔	Mid-term Test. Answers to essay-type questions will be evaluated on the basis of 4 criteria. First, a level of comprehension of the "course of history" and "geographical condition." Second, the accuracy of historical facts (*shijitsu*) and facts (*jijitsu*) in the contents of an answer. Third, the relevance and logic of answers to the examination question. Fourth, concise sentences and good textual structure. (20%)
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Reports	①	✔	There will be five assignments; the instructor will explain how to think and how to write effectively. Each assignment will be distributed in class and submitted at the beginning of the next class. Assignments will be evaluated and returned the following week. (20%)
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Presentations	①		There will be one presentation at the end of the semester. Students will choose topics on the "course of history" and "geographical condition" in consultation with the instructor. Individual presentations will be evaluated on the following points: contents, style, method, supporting material such as power-point, the indication of sources, the role of an individual presenter for the group, etc. The presentation will be evaluated and returned the following week. (20%＋20%＝40%)
	②		
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✔	Portfolio must include reflection paper, all handouts, 5 assignments, supporting material for one presentation, and others when relevant. Work will be comprehensively evaluated, together with students' volition and attitudes to learning. Students will submit the portfolio by the end of the semester. (20%)
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Others	①		'
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to explain international affairs of East Asia from both historical/geographical perspectives. Students will be able to understand "India" and explain its role in international community in future from both historical/geographical perspectives. Students will be able to understand "Middle East" and explain its various problems that continue today from both historical/geographical perspectives. Students will be able to understand former British Empire and its legacies as the foundation of international community today from both historical/geographical perspectives. Students will be able to understand Russia and its neighboring countries from both historical/geographical perspectives and explain Students will explain the North Pole from both historical/geographical perspectives and its impacts on international community in future.	Students will learn basic knowledge about the history of international affairs and geographical conditions in East Asia. Students will learn basic knowledge about the history behind the formation of India and its geographical conditions. Students will learn basic knowledge about the history of Middle East and its geographical conditions Students will learn basic knowledge about the history of the former British Empire and its geographical conditions. Students will learn basic knowledge about the history of Russia and its neighboring countries and their geographical conditions. Students will learn basic knowledge about the history of the North Pole and its geographical conditions.

Course Schedule

* The standard time required for the specified assignment is provided in the "Time" column of the assignments. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction	Lecture on geography, history, and international relations.	Review course content.	30 10
2 /	China	Lecture on various issues China faces. Distribute Assignment ①	Review course content.	30 10
3 /	The Korean Peninsula	Lecture on various issues surrounding the Korean Peninsula. Submit Assignment ①	Review course content.	30 10
4 /	Southeast Asia	Lecture on various issues in Southeast Asia. Distribute Assignment ②	Review course content.	30 10
5 /	South Asia: India as its center	Lecture on the significance of India and its various issues. Submit Assignment ②	Review course content	30 10
6 /	Middle East	Lecture on the importance of Middle East and its various issues.	Review course content.	30 10
7 /	African Continent	Lecture on the history of African Continent and its various challenges. Distribute Assignment ③	Review course content.	30 10
8 /	Legacies of colonial policies: the former British Empire	Lecture on the legacies of the former British Empire by selecting examples of a few countries. Submit Assignment ③	Review course content.	30 10
9 /	Russia and Eastern Europe (including the Balkan Peninsula) Mid-term test (60 minutes)	Lecture on Russia's external policies and its relations to its neighboring countries.	Study course content. Review the contents of the test and the results.	60 10
10 /	The North Pole	Lecture on various issues surrounding the North Pole. Distribute Assignment ④	Review course content.	30 10

Course Schedule

* The standard time required for the specified assignment is provided in the "Time" column of the assignments. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	North and South Americas	Lecture on the relationship and various issues between the two continents. Submit Assignment ④	Review course content.	30 10
12 /	Central Asia	Lecture on various issues surrounding Central Asia.	Review course content.	30 10
13 /	The Pacific Islands	Lecture on various issues surrounding the Pacific islands. Distribute Assignment ⑤	Review course content.	30 10
14 /	“Space”	Lecture on ulterior motives of Great Powers over the area called “space”. Submit Assignment ⑤	Review course content.	30 10
15 /	Presentation	Present a topic of student’s choice.	Prepare for presentation. Evaluate one’s presentation and others	60 45
16 /	Final Exam	Final exam (50 minutes)	Study overall course content. Review the content of the exam and the results.	50 10
17 /	Self-check			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Calculus A	2	611200	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	KIHARA, Hitoshi	Hakusanroku C 101.201		(M-F) 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Limits	Students will be able to master the concept of a limit, show how a limit help us define the derivative, consider different techniques of differentiation, know how to use derivatives to sketch the graphs of numerous functions, learn how to apply the concept of derivatives to real-world problems, and how sequences can be useful to convey numbers.
2	Continuity	
3	Derivatives	
4	Graphs	
5	Sequences	

Course Description and Expectations for Students (10.5pt)

In this course, we will learn how the study of calculus came to be and why calculus is important for many different fields in science and technology. The course will start with the idea of limits and how we use limits to understand how functions behave at certain points and at infinity. We will then learn the notion of continuity and how limits and continuity help us understand the notion of a derivative. Once we know what a derivative is, we will learn many techniques of differentiation and applications to differentiation. We will finish the course with a basic introduction to sequences which will get us ready for the next course.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Calculus Early Transcendentals 9th Edition by James Stewart (Cengage Learning)
ISBN-13: 978-1337613927

Reference books: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart (Brooks/Cole Pub Co)
ISBN-13: 978-1305071759

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a decent understanding of the concepts covered in Pre-Calculus about functions, their graphs and their properties. It is advised that students should feel comfortable asking questions in and outside of the class. Further, students should take the worksheet problems in class serious in order to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, d, g, i	Students will be able to understand the purpose of finding the limits of functions.
②	a, d, g, i	Students will be able to understand the meaning of a derivative.
③	a, d, g, i	Students will be able to understand how to apply different techniques of differentiation.
④	a, d, g, i	Students will be able to understand how to sketch graphs of functions by using derivatives.
⑤	a, d, g, i	Students will be able to understand different applications of derivatives.
⑥	a, d, g, i	Students will be able to understand the meaning of sequences and sigma notation.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	50	20	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	25	5	0	0	0	0	45
	Ability to think, reason and create	15	25	5	0	0	0	0	45
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover material for latter half of this semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework and quizzes before a test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each lecture which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. These quizzes are meant to make sure you are keeping up with the class. And there will be one mid-term test which will cover material for former half of this semester. It is worth 30% of your grade, so 50% of your final grade will be obtained through these quizzes and mid-term test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment each lecture. The grading criteria will be based on whether or not you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are curious, ask a lot of questions and show willingness to try new ideas, no matter of failure. Further, students understand that making mistakes is crucial to learning. Therefore, students go back and correct any mistakes they might have encountered in their work/HW/quizzes/exams. In essence, students learn the procedure of learning.	Students address their weaknesses in specific topics and form a plan in order to succeed in Calculus.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction The Limit and Continuity	Lecture Worksheet	Read Section 2.2 and 2.5 Read the syllabus. Finish worksheet/HW.	30
2 /	Calculating Limits 1	Quiz Lecture Worksheet	Read Section 2.3 and 2.6 Finish worksheet/HW.	30
3 /	Calculating Limits 2	Quiz Lecture Worksheet	Read Section 2.3 and 2.6 Finish worksheet/HW.	30
4 /	Calculating Limits 3	Quiz Lecture Worksheet	Read Section 2.3 and 2.6 Finish worksheet/HW.	30
5 /	Calculating Limits 4	Quiz Lecture Worksheet	Read Section 2.3 and 2.6 Finish worksheet/HW.	30
6 /	Tangent Lines	Quiz Lecture Worksheet	Read Section 2.7 Finish worksheet/HW.	30
7 /	Derivatives	Quiz Lecture Worksheet	Read Section 2.8 Finish worksheet/HW.	30
8 /	Differentiation	Quiz Lecture Worksheet	Read Section 3.1 Finish worksheet/HW.	30
9 /	The Product and Quotient Rules	Quiz Lecture Worksheet	Read Section 3.2 Finish worksheet/HW.	30
10 /	The Chain Rule	Quiz Lecture Worksheet	Read Section 3.4 Finish worksheet/HW.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Derivatives of Trigonometric Functions	Quiz Lecture Worksheet	Read Section 3.3 Finish worksheet/HW.	30
12 /	Derivatives of Exponential/Logarithmic Functions	Quiz Lecture Worksheet	Read Section 3.6 Finish worksheet/HW.	30
13 /	Summary of Derivatives	Quiz Lecture Worksheet	Finish worksheet/HW.	30
14 /	Review for Mid-term Test	Quiz Self-Study / Q&A	Review for Mid-term Test.	30
15 /	Mid-term Test	Return Mid-term Test Self-Study Test	Review materials from #1 to #13.	120
16 /	Implicit Differentiation	Quiz Lecture Worksheet	Read Section 3.5 Finish worksheet/HW.	30
17 /	Linear Approximations	Quiz Lecture Worksheet	Read Section 3.10 Finish worksheet/HW.	30
18 /	Graphs of Functions	Quiz Lecture Worksheet	Read Section 4.1 Finish worksheet/HW.	30
19 /	Maximum and Minimum Values	Quiz Lecture Worksheet	Read Section 4.1 Finish worksheet/HW.	30
20 /	Concavity and Inflection Points	Quiz Lecture Worksheet	Read Section 4.3 Finish worksheet/HW.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	L'Hospital's Rule 1	Quiz Lecture Worksheet	Read Section 4.4 Finish worksheet/HW.	30
22 /	L'Hospital's Rule 2	Quiz Lecture Worksheet	Read Section 4.4 Finish worksheet/HW.	30
23 /	L'Hospital's Rule 3	Quiz Lecture Worksheet	Read Section 4.5 Finish worksheet/HW.	30
24 /	Optimization Problems	Quiz Lecture Worksheet	Read Section 4.7 Finish worksheet/HW.	30
25 /	Sequences	Quiz Lecture Worksheet	Read Section 12.2 and 12.3 on Reference books: Pre-Calculus Finish worksheet/HW.	30
26 /	Sigma Notation	Quiz Lecture Worksheet	Read Section 12.1 on Reference books: Pre-Calculus Finish worksheet/HW.	30
27 /	Sums of Arithmetic/Geometric Sequence	Quiz Lecture Worksheet	Read Section 12.2 and 12.3 on Reference books: Pre-Calculus Finish worksheet/HW.	30
28 /	Formulae of Sigma Notation	Quiz Lecture Worksheet	Read Section 12.2 and 12.3 on Reference books: Pre-Calculus Finish worksheet/HW.	30
29 /	Mathematical Induction	Quiz Lecture Worksheet	Read Section 12.5 on Reference books: Pre-Calculus Finish worksheet/HW.	30
30 /	Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	30

Course schedule

* In the “Time” column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
31 ／	Final Exam		Review materials from #16 to #29.	120
32 ／	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Calculus B	2	611300	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	KIHARA, Hitoshi	Hakusanroku C: 101.201		(M-F) 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Anti-Derivatives	Students will be able to know the concept of an anti-derivative, show the relationship between the integral and the derivative, understand various methods of integration, use integration as a tool in finding areas and volumes.
2	Riemann's Sum	
3	Integrals	
4	Areas	
5	Volumes	

Course Description and Expectations for Students (10.5pt)

This course will start with the idea of how to find the area under curves using limits and summations. We will then understand how using limits and summations to find areas under curves is using the idea of Riemann's Sum. This then allows us to understand how calculating area under curves brings out the notion of integration. The Fundamental Theorem of Calculus connects what we learned in the first semester of differentiation to the new notion of integration. Different integration techniques will be studied, followed by how to calculate areas and volumes of different shapes by integration.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Calculus Early Transcendentals 9th Edition by James Stewart (Cengage Learning)
ISBN-13: 978-1337613927

Reference books: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart (Brooks/Cole Pub Co)
ISBN-13: 978-1305071759

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a decent understanding of the concepts covered in Calculus A.
It is advised that students should feel comfortable asking questions in and outside of the class. Further, students should take the worksheet problems in class serious in order to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, d, g, i	Students will be able to understand the relationship between the derivative and the antiderivative.
②	a, d, g, i	Students will be able to understand the meaning of Reimann's Sum method.
③	a, d, g, i	Students will be able to understand how to find the value of definite integrals.
④	a, d, g, i	Students will be able to understand how to use the properties of definite integrals.
⑤	a, d, g, i	Students will be able to understand how to use the various methods of integration.
⑥	a, d, g, i	Students will be able to understand how to use the integral to find the area and volume of objects.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	50	20	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	25	5	0	0	0	0	45
	Ability to think, reason and create	15	25	5	0	0	0	0	45
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover material for latter half of this semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework and quizzes before a test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each lecture which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. These quizzes are meant to make sure you are keeping up with the class. And there will be one mid-term test which will cover material for former half of this semester. It is worth 30% of your grade, so 50% of your final grade will be obtained through these quizzes and mid-term test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment each lecture. The grading criteria will be based on whether or not you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are curious, ask a lot of questions and show willingness to try new ideas, no matter of failure. Further, students understand that making mistakes is crucial to learning. Therefore, students go back and correct any mistakes they might have encountered in their work/HW/quizzes/exams. In essence, students learn the procedure of learning.	Students address their weaknesses in specific topics and form a plan in order to succeed in Calculus.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction Antiderivatives 1	Lecture Worksheet	Read Section 4.9. Read the syllabus. Finish worksheet/HW.	30
2 /	Antiderivatives 2	Quiz Lecture Worksheet	Read Section 4.9. Finish worksheet/HW.	30
3 /	Riemann Sum 1	Quiz Lecture Worksheet	Read Section 5.1. Finish worksheet/HW.	30
4 /	Riemann Sum 2	Quiz Lecture Worksheet	Read Section 5.1. Finish worksheet/HW.	30
5 /	The Definite Integral 1	Quiz Lecture Worksheet	Read Section 5.2 and 5.3. Finish worksheet/HW.	30
6 /	The Definite Integral 2	Quiz Lecture Worksheet	Read Section 5.2. Finish worksheet/HW.	30
7 /	Properties of the Definite Integral 1	Quiz Lecture Worksheet	Read Section 5.2. Finish worksheet/HW.	30
8 /	Properties of the Definite Integral 2	Quiz Lecture Worksheet	Read Section 5.2 and 5.5. Finish worksheet/HW.	30
9 /	The Substitution Rule 1	Quiz Lecture Worksheet	Read Section 5.5. Finish worksheet/HW.	30
10 /	The Substitution Rule 2	Quiz Lecture Worksheet	Read Section 5.5. Finish worksheet/HW.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	The Substitution Rule 3	Quiz Lecture Worksheet	Read Section 5.5. Finish worksheet/HW.	30
12 /	The Substitution Rule 4	Quiz Lecture Worksheet	Read Section 7.3. Finish worksheet/HW.	30
13 /	Review for Mid-term Test	Quiz Self-Study / Q&A	Review for Mid-term Test.	30
14 /	Mid-term Test	Self-Study Test	Review materials from #1 to #12.	120
15 /	Integration by Parts 1	Test return Lecture Worksheet	Read Section 7.1. Finish worksheet/HW.	30
16 /	Integration by Parts 2	Quiz Lecture Worksheet	Read Section 7.1. Finish worksheet/HW.	30
17 /	Integration by Part 3	Quiz Lecture Worksheet	Read Section 7.1. Finish worksheet/HW.	30
18 /	Integration of Rational Functions 1	Quiz Lecture Worksheet	Read Section 7.4. Finish worksheet/HW.	30
19 /	Integration of Rational Functions 2	Quiz Lecture Worksheet	Read Section 7.4. Finish worksheet/HW.	30
20 /	Integration of Rational Functions 3	Quiz Lecture Worksheet	Read Section 7.4. Finish worksheet/HW.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Trigonometric Integrals 1	Quiz Lecture Worksheet	Read Section 7.2. Finish worksheet/HW.	30
22 /	Trigonometric Integrals 2	Quiz Lecture Worksheet	Read Section 7.2. Finish worksheet/HW.	30
23 /	Trigonometric Integrals 3	Quiz Lecture Worksheet	Read Section 7.2. Finish worksheet/HW.	30
24 /	Areas Between Curves 1	Quiz Lecture Worksheet	Read Section 6.1. Finish worksheet/HW.	30
25 /	Areas Between Curves 2	Quiz Lecture Worksheet	Read Section 6.1. Finish worksheet/HW.	30
26 /	Areas Between Curves 3	Quiz Lecture Worksheet	Read Section 6.1. Finish worksheet/HW.	30
27 /	Solids of Revolution 1	Quiz Lecture Worksheet	Read Section 6.2. Finish worksheet/HW.	30
28 /	Solids of Revolution 2	Quiz Lecture Worksheet	Read Section 6.2. Finish worksheet/HW.	30
29 /	Solids of Revolution 3	Quiz Lecture Worksheet	Read Section 6.2. Finish worksheet/HW.	30
30 /	Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	30

Course schedule

* In the “Time” column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
31 ／	Final Exam		Review materials from #15 to #29.	120
32 ／	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Algebra and Geometry A	2	611600	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	HUSSIEN, Alaa	Hakusanroku C 101. 201		(Mon.-Thu.) 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Matrices – Linear equations	Students will be able to define a matrix and recognize its properties, understand how to use matrices for solving linear equations, solve some real life application problems using matrices, know the equations for a parabola, ellipse and hyperbola, and understand some applications from the real life that uses such shapes.
2	Determinants – Cramer rule	
3	Conic Sections-Parabolas	
4	Ellipse	
5	Hyperbola	

Course Description and Expectations for Students (10.5pt)

In the first part of this course, students will study the notion of basic linear algebra. That is, they will look at simultaneous equations and convert them into matrices. Then, they will learn how to solve linear equations using matrices and apply their knowledge to solve some real-life application problems. Students will also learn the algebra and properties of matrices. In the second part, students will learn about conic sections such as parabolas, ellipses, and hyperbolas. They will study the equations of each shape and the proofs of those equations. In addition, they will learn how such shapes are used in useful and different real-life applications. It is advised that students pay attention to understand the topic of each class very well, ask questions during the class, and submit the assignments on time.

【Required Materials (textbooks, reference books, reserved books)】

Textbooks: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart- CENGAGE-ISBN 978-1305071759

Reference books: Calculus Early Transcendentals 7th Edition by James Stewart- CENGAGE-ISBN 978-0538497909

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a basic understanding of equations and geometry.
It is advised that students should feel comfortable asking questions in and outside of the class. Further, students should take the worksheet problems in class serious to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g, i	Students will be able to define a matrix and recognize its properties.
②	a, d, g, i	Students will be able to understand how to use matrices for solving systems of linear equations.
③	a, d, f, g	Students will be able to find the determinant and inverse of a matrix.
④	a, d, g, i	Students will be able to solve different real life applications problems using matrices.
⑤	a, d, g, i	Students will be able to define a parabola, ellipse, hyperbola, graph them and recognize their properties.
⑥	a, g, i	Students will be able to understand how such shapes are useful in making some daily used devices

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	40	20	0	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	20	10	0	0	0	0	45
	Ability to think, reason and create	15	20	10	0	0	0	0	45
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover materials studied in the whole semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework, and quizzes before the exam.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each class which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. There will be two-chapter tests, each test is worth 10% of the final grade for a total of 20%. So 40% of your score will be obtained through the quizzes and the chapter tests.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment every class and the deadline will be the end of the learning session of the class day. The grading criteria will be based on whether you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	The portfolio aspect of the grade is meant to make sure the student is keeping up with all the daily material in a neat and organized manner. There will be a rubric that will determine your final score for your portfolio. The rubric will measure the following: 1-Notebook – Did the student take a decent amount of notes for each lecture? 5% 2-Binder – Are the papers of all sections well organized? 2% 3-Work– Did the student go back to correct mistakes in their work/HW/quizzes/exams? 3%
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
1-Students learn different methods for solving linear equations using matrices and determinants. 2-Detrmine whether the system is dependent or inconsistent. 3-Apply that in many real life applications such as graphics, cryptography, chemical reactions, etc. 4-Students know the definitions and graphs of conic sections and finding their equations. 5-Uderstand how conics sections are useful to make some daily used devices such as antennas and navigations system 6-Students are curious, ask a lot of questions and show willingness to try new ideas, no matter of failure.	1-Students learn how to solve linear equations using matrices and determinants. 2-Determine whether the system is dependent or inconsistent. 3-know the definitions and graphs of basic conic sections and some applications. 4-Students address their weaknesses in specific topics and form a plan to succeed in the course.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction		Read the syllabus. Preview content for L.#2	30
2 /	System of Linear Equations in Two Variables	Lecture Worksheet #1	Finish worksheet/HW. Preview content for L.#3	30
3 /	System of Linear Equations in Several Variables	Lecture Worksheet #2	Finish worksheet/HW. Preview content for L.#4	30
4 /	Matrices and Systems of Linear Equations Part I	Lecture Worksheet #3	Finish worksheet/HW. Preview content for L.#5	30
5 /	Matrices and Systems of Linear Equations Part II	Lecture Worksheet #4	Finish worksheet/HW. Preview content for L.#6	30
6 /	The Algebra of Matrices Part I	Lecture Worksheet #5	Finish worksheet/HW. Preview content for L.#7	30
7 /	The Algebra of Matrices Part II	Lecture Worksheet #6	Finish worksheet/HW. Preview content for L.#8	30
8 /	Inverses of Matrices and Matrix Equations Part I	Lecture Worksheet #7	Finish worksheet/HW. Preview content for L.#9	30
9 /	Inverses of Matrices and Matrix Equations Part II	Lecture Worksheet #8	Finish worksheet/HW. Preview content for L.#10	30
10 /	Determinants	Lecture Worksheet #9	Finish worksheet/HW. Preview content for L.#11	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Cramer’s Rule	Lecture Worksheet #10	Finish worksheet/HW. Preview content for L.#12	30
12 /	Systems of Non-Linear Equations	Lecture Worksheet #11	Finish worksheet/HW. Preview content for L.#11	30
13 /	Systems of Inequalities	Lecture Worksheet #12	Finish worksheet/HW. Preview content for L.#13	30
14 /	Applications of Matrices Part I	Lecture Worksheet #13	Finish worksheet/HW. Preview content for L.#13	30
15 /	Applications of Matrices Part II	Lecture Worksheet #14	Finish worksheet/HW. Preview content for L.#14	30
16 /	Applications of Matrices Part III	Lecture Worksheet #15	Finish worksheet/HW. Preview content for L.#15	30
17 /	Applications of Matrices Part IV	Lecture Worksheet #16	Finish worksheet/HW. Preview content for L.#16	30
18 /	Applications of Matrices Part V	Lecture Worksheet	Finish worksheet/HW. Review content for Test I.	30
19 /	Review for TEST I	Self-Study / Q&A	Review content for Test I	80
20 /	TEST I		Preview content for L.#21	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Conic Sections: Parabolas	Lecture Worksheet #17	Finish worksheet/HW. Preview content for L.#22	30
22 /	Applications of Parabolas	Lecture Worksheet #18	Finish worksheet/HW. Preview content for L.#23	30
23 /	Conic Sections: Ellipses	Lecture Worksheet #19	Finish worksheet/HW. Preview content for L.#24	30
24 /	Applications of Ellipses	Lecture Worksheet #20	Finish worksheet/HW. Preview content for L.#25	30
25 /	Conic Sections: Hyperbolas	Lecture Worksheet #21	Finish worksheet/HW. Preview content for L.#26	30
26 /	Applications of Hyperbolas	Lecture Worksheet #22	Finish worksheet/HW. Preview content for L.#27	30
27 /	Shifted Parabolas/Ellipses/Hyperbolas	Lecture Worksheet #23	Finish worksheet/HW. Review content for Test II	30
28 /	Review for TEST II	Self-Study / Q&A	Review content for Test II.	80
29 /	TEST II		Review for Final Exam.	30
30 /	TEST II return Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	120

Course schedule

* In the “Time” column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 ／	Final Exam		Review all materials	120
32 ／	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Algebra and Geometry B	2	611700	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	HUSSIEN, Alaa	Hakusanroku C 101. 201		Mon,Tue,Thu 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Hyperbolic functions.	Students will learn about hyperbolic functions and how they are related to hyperbolas and understand how to represent equations in polar form, understand the difference between scalar quantities and vector quantities, learn about the properties of vectors and vector operations in 2D and 3D, look at different applications that incorporate vectors, know how to find the dot and cross product of two vectors, learn how to find vector equations of lines and planes in 3D, and study some vector applications in real-life.
2	Polar coordinates.	
3	Vectors(2D)-Vectors(3D)	
4	Dot product-Cross Product(3D)	
5	Equations of lines-Equations of planes	

Course Description and Expectations for Students (10.5pt)

This course is divided into 3 parts, the first part is related to hyperbolic functions and polar coordinates. The second part is related to vectors in 2D and the third part is related to vectors in 3D. Students will learn the definition of hyperbolic functions and its relation to hyperbola. They will know about the polar coordinates and how to represent and graph equations using polar system. Then they will learn about definition and properties of vectors in 2D, how to do different operations on vectors in 2D such as addition subtraction and multiplying by a scalar, and their applications in real life. The dot product of two vectors in 2D is important as it has many applications in real life, so student will know how to find it. After studying the vectors in 2D, students will learn about vectors in 3D and how to find the dot and cross product of two vectors in 3D and know about different applications. In 3D they will also learn about how to find equations of lines and planes and their applications. It is advised that students do their best by asking questions to understand the topic of each class very well as the topic of next classes depends up on the previous ones.

【Required Materials (textbooks, reference books, reserved books)】
Textbooks: Pre-Calculus Mathematics for Calculus 7th Edition by James Stewart- CENGAGE-ISBN 978-1305071759
Reference books: Calculus Early Transcendentals 7th Edition by James Stewart- CENGAGE-ISBN 978-0538497909
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have a basic understanding of equations and geometry, and remember the definition of hyperbola from the first term. It is advised that students should feel comfortable asking questions in and outside of the class. Further, students should take the worksheet problems in class serious in order to understand the topics covered in class. Students should eventually understand that making mistakes is crucial for their learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, g, i	Students will be able to understand the definition hyperbolic functions and polar coordinates system.
②	a, d, g, i	Students will be able to understand the properties of vectors and vector operations in two dimensions.
③	a, d, f, g	Students will be able to solve application problems using vectors to model force, displacement & velocity.
④	a, d, g, i	Students will be able to define a vector and understand its properties in three dimensions.
⑤	a, d, g, i	Students will be able to find the dot product and cross product of vectors in three dimensions.
⑥	a, g, i	Students will be able to find equations of lines and planes in three dimensions.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	40	20	0	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	20	10	0	0	0	0	45
	Ability to think, reason and create	15	20	10	0	0	0	0	45
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover materials studied in the whole semester. It is worth 30% of your final grade. It is crucial that you study all your notes, homework, and quizzes before the exam.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each class which will cover material from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. There will be two-chapter tests, each test is worth 10% of the final grade for a total of 20%. So 40% of your score will be obtained through the quizzes and the chapter tests.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will have to submit a HW/worksheet assignment every class and the deadline will be the end of the learning session of the class day. The grading criteria will be based on whether you have checked your answer and have corrected your mistakes completely. In total, your assignment will equate to 20% of your final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	The portfolio aspect of the grade is meant to make sure the student is keeping up with all the daily material in a neat and organized manner. There will be a rubric that will determine your final score for your portfolio. The rubric will measure the following: 1-Notebook – Did the student take a decent amount of notes for each lecture? 5% 2-Binder – Are the papers of all sections well organized? 2% 3-Work– Did the student go back to correct mistakes in their work/HW/quizzes/exams? 3%
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
1-Students learn about hyperbolic functions, polar coordinates and graph equations in polar system. 2-Students learn about vectors in 2D, their properties, operations, dot product 3-How to use vectors in 2D for velocity and force modeling applications in physics. 4-Learn about vectors in 3D, their properties, operations, dot and cross product. 5-Use vectors in 3D for torque modeling and distance calculation application. 6-Students are curious, ask a lot of questions try new ideas.	1-Students learn about the hyperbolic functions and polar system. 2-Know the definition of vectors, properties, and basic operations in 2D. 3-Undertsand some applications related to physics 4-Learn about 3D coordinates, definition of vectors in 3D and basic operations and some applications. 5-Students address their weaknesses in specific topics and form a plan to succeed in the course.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus/Class Introduction Hyperbolic function	Lecture Worksheet #1	Read the syllabus. Preview content for L.#2	30
2 /	Polar coordinate system part I	Lecture Worksheet #2	Finish worksheet/HW. Preview content for L.#3	30
3 /	Polar coordinate system part II	Lecture Worksheet #3	Finish worksheet/HW. Preview content for L.#4	30
4 /	Vectors Introduction Vectors in Two Dimensions Part I	Lecture Worksheet #4	Finish worksheet/HW. Preview content for L.#5	30
5 /	Vectors in Two Dimensions Part II	Lecture Worksheet #5	Finish worksheet/HW. Preview content for L.#6	30
6 /	Applications of Vectors in Two Dimensions	Lecture Worksheet #6	Finish worksheet/HW. Preview content for L.#7	30
7 /	The Dot Product of Vectors	Lecture Worksheet #7	Finish worksheet/HW. Preview content for L.#8	30
8 /	Applications of the Dot Product Part I	Lecture Worksheet #8	Finish worksheet/HW. Preview content for L.#9	30
9 /	Applications the Dot Product Part II	Lecture Worksheet #9	Finish worksheet/HW. Preview content for L.#10	30
10 /	Applications of the Dot Product Part III	Lecture Worksheet #10	Finish worksheet/HW. Preview content for L.#11	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Applications of the Dot Product Part IV	Lecture	. Review all contents for Test #1	30
12 /	Review for Test I	Self-Study / Q&A	Review content for Test #1	30
13 /	TEST I		Preview content for L.#14	30
14 /	Three-Dimensional Coordinate Geometry Part I	Lecture Worksheet #11	Finish worksheet/HW. Preview content for L.#15	30
15 /	Three-Dimensional Coordinate Geometry Part II	Lecture Worksheet #12	Finish worksheet/HW. Preview content for L.#16	30
16 /	Vectors in Three Dimensions Part I	Lecture Worksheet #13	Finish worksheet/HW. Preview content for L.#17	30
17 /	Vectors in Three Dimensions Part II	Lecture Worksheet #14	Finish worksheet/HW. Preview content for L.#18	30
18 /	Vectors in Three Dimensions Part III	Lecture Worksheet #15	Finish worksheet/HW. Preview content for L.#19	30
19 /	The Cross Product Part I	Lecture Worksheet #16	Finish worksheet/HW. Preview content for L.#20	80
20 /	The Cross Product Part II	Lecture Worksheet #17	Finish worksheet/HW. Preview content for L.#21	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Applications of the Cross Product	Lecture Worksheet #18	Finish worksheet/HW. Preview content for L.#22	30
22 /	Equations of Lines	Lecture Worksheet #19	Finish worksheet/HW. Preview content for L.#23	30
23 /	Applications of Lines Part I	Lecture Worksheet #20	Finish worksheet/HW. Preview content for L.#24	30
24 /	Applications of Lines Part II	Lecture Worksheet #21	Finish worksheet/HW. Preview content for L.#25	30
25 /	Equations of Planes	Lecture Worksheet #22	Finish worksheet/HW. Preview content for L.#26	30
26 /	Applications of Planes Part I	Lecture Worksheet #23	Finish worksheet/HW. Preview content for L.#27	30
27 /	Applications of Planes Part II	Lecture Worksheet #24	Finish worksheet/HW. Review content for Test II	30
28 /	Review for Test II	Self-Study / Q&A	Finish worksheet/HW. Review content for Test II	80
29 /	TEST II		Review for Final Exam.	30
30 /	TEST II return Review for Final Exam	Self-Study / Q&A	Review for Final Exam.	120

Course schedule

* In the “Time” column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 ／	Final Exam		Review all materials	120
32 ／	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Physics A	2	612000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	ITO, Meguru GATRI, Dorsaf	Hakusanorku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Electricity	Physics cultivates the ability to think systematically and logically about phenomena that are important to learning natural science and engineering. In this course, students will be able to deepen their knowledge about physical phenomena about electricity and magnetism. Students will also learn heat and thermodynamics.
2	Magnetism	
3	Heat	
4	Thermodynamics	
5		

Course Description and Expectations for Students (10.5pt)

In this course,

- Students must submit all exercises, quizzes, and preview checks.
- Late submission may reduce students' score.
- All classes are conducted in English.
- Students have to take notes and submit them each month.

Advice for students:

- Physics A is a course that forms the base of Physics B, specialized courses in 4th and 5th grade. Be sure to understand the contents. If you have any questions, ask during classes, learning sessions, and/or schedule a meeting with a teacher during posted office hours.

This course consists of preparations (reading textbooks/ preview check), classes (exercise/class work/quiz), and reviews. Be sure to work on preparations because understanding during classes will improve greatly.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Physics (HMH) ISBN 978-0-544-81773-9
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of Fundamental Physics A and B
Fundamental skills of calculation

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to understand factors of electricity (field, potential, current etc.).
②	h,i	Students will be able to understand magnetism.
③	h,i	Students will be able to understand relationship between electricity and magnetism.
④	h,i	Students will be able to understand heat and thermodynamics.
⑤	d,h,i	Students will be able to understand physical phenomena through experiments and inquiry project.
⑥	i	Students will be able to participate classes actively and review what you achieved.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	20	0	0	10	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	10	0	0	0	0	40
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	0	0	0	10	5	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	An exam will be administered at end of semester. The exam covers all topics that students learned in the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	Students will have short quizzes in class to check understanding of the content. If students solve mastery problems, they get bonus point.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Exercises and Preview checks will be done in most classes. The exercises should be done in class time. But if students could not finish exercise in class time, it should be finished by the next class, or the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		Students have to take notes in class. Students' notebook will be graded based on the content and organization level of the notes.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		Students are able to give feedback about classes.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to identify and understand actual phenomena correctly with physical interpretation. Students are able to calculate and solve questions correctly using formulae. Students are able to understand units and their dimensions for each physical value discussed in the course.	Students are able to understand physical phenomena. Students are able to calculate and solve questions using formulae. Students are able to understand units of physical values.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Review of Buoyancy Understanding through the experiment	Guidance and experiment	Reading the given documents Reading textbook, then preview check	30
2 /	Electrostatics Understanding Coulomb’s law and electrostatic forces	Lecture and exercise	Confirming the unclear points	15
3 /	Electrostatics Understanding Coulomb’s law and electrostatic forces	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
4 /	Electric Field Understanding the electric fields	Lecture and exercise Quiz	Confirming the unclear points	15
5 /	Electric Field Understanding the electric fields	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
6 /	Electric Potential Understanding the electric potential energy and electric potential	Lecture and exercise Quiz	Confirming the unclear points	15
7 /	Electric Potential Understanding the electric potential energy and electric potential	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
8 /	Capacitance Understanding the capacitance	Lecture and exercise Quiz	Confirming the unclear points	15
9 /	Capacitance Understanding the capacitance	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
10 /	Current and Resistance Understanding the electric current, Ohm’s law, electric power, and Joule’s heat.	Lecture and exercise Quiz	Finishing exercise and reviewing the class Reading textbook, then preview check	45

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Magnets and Magnetic Fields Understanding the magnetic fields	Lecture and exercise	Confirming the unclear points	15
12 /	Magnets and Magnetic Fields Understanding the magnetic fields	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
13 /	Magnetism from Electricity Understanding the Right-hand rule	Lecture and exercise Quiz	Confirming the unclear points	15
14 /	Magnetism from Electricity Understanding the Ampere’s law	Lecture and exercise	Finishing exercise and reviewing class Reading textbook, then preview check	45
15 /	Electricity from Magnetism Understanding the electromagnetic induction	Lecture and exercise Quiz	Confirming the unclear points	15
16 /	Electricity from Magnetism Understanding the Faraday’s law	Lecture and exercise	Finishing exercise and reviewing class Reading textbook, then preview check	45
17 /	Generators, Motors, Mutual inductance, and Transformers Understanding the mutual induction	Lecture and exercise Quiz	Confirming the unclear points	30
18 /	Heat transfer Understanding the various types of heat transfer	Lecture and exercise	Finishing exercise and reviewing class	15
19 /	Heat Understanding the specific heat capacity of matter	Lecture and exercise	Confirming the unclear points	45
20 /	Heat Understanding the heat expansion	Lecture and exercise	Finishing exercise and reviewing class	15

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Change in Phase Understanding the latent heat and phase change	Lecture and exercise Quiz	Finishing exercise and reviewing class Reading textbook, then preview check	45
22 /	The First Law of Thermodynamics Understanding the processes of thermodynamics	Lecture and exercise	Confirming the unclear points	15
23 /	The First Law of Thermodynamics Understanding the adiabatic process	Lecture and exercise	Finishing exercise and reviewing class Reading textbook, then preview check	45
24 /	The Second Law of Thermodynamics Understanding the heat engines and entropy	Lecture and exercise Quiz	Finishing exercise and reviewing class	30
25 /	The Second Law of Thermodynamics Understanding the Carnot cycle	Lecture and exercise	Confirming the unclear points	15
26 /	Inquiry Based Project Researching the physical phenomenon, creating student’s idea, and writing a report	Project Quiz	Continuing the assignment	15
27 /	Inquiry Based Project Researching the physical phenomenon, creating student’s idea, and writing a report	Project	Continuing the assignment	15
28 /	Inquiry Based Project Researching the physical phenomenon, creating student’s idea, and writing a report	Project	Finishing the report	45
29 /	Exercise Understanding the learned contents	Exercise	Reviewing the contents so far. Checking wrong answer	45
30 /	Exercise Understanding the learned contents	Exercise	Reviewing the contents so far. Checking wrong answer	45
31	Final exam		Review all materials	
32	Final exam return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Physics B	2	612100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	ITO, Meguru GATRI, Dorsaf	Hakusanorku C 101.201		

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Vibration	Physics cultivates the ability to think systematically and logically about phenomena that are important to learning natural science and engineering. In this course, students will be able to deepen their knowledge about the phenomena of wave motion, sound, and light. Students will also learn the fundamentals of nuclear physics and atomic energy.
2	Wave, sound	
3	Light	
4	Radioactivity and nuclear reaction	
5		

Course Description and Expectations for Students (10.5pt)

In this course,

- Students must submit all exercises, quizzes, and preview checks.
- Late submission may reduce students' score.
- All classes are conducted in English.
- Students have to take notes and submit them each month.

Advice for students:

- Physics B is a course that forms the base of Physics B, specialized courses in 4th and 5th grade. Be sure to understand the contents. If you have any questions, ask during classes, learning sessions, and/or schedule a meeting with a teacher during posted office hours.

This course consists of preparations (reading textbooks/ preview check), classes (exercise/class work/quiz), and reviews. Be sure to work on preparations because understanding during classes will improve greatly.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Physics (HMH) ISBN 978-0-544-81773-9
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of Fundamental Physics A, B and Physics A
Fundamental skills of calculation

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to understand concept of simple harmonic motion.
②	h,i	Students will be able to understand characteristics of sound wave and light wave.
③	h,i	Students will be able to understand physics of refraction and interference of wave.
④	h,i	Students will be able to understand concept of radioactivity and nuclear reaction.
⑤	d,h,i	Students will be able to understand physical phenomena through experiments and inquiry project.
⑥	i	Students will be able to participate classes actively and review what you achieved.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	20	0	0	10	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	10	0	0	0	0	40
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	0	0	0	10	5	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	An exam will be administered at end of semester. The exam covers all topics that students learned in the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	Students will have short quizzes in class to check understanding of the content. If students solve mastery problems, they get bonus point.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Exercises and Preview checks will be done in most classes. The exercises should be done in class time. But if students could not finish exercise in class time, it should be finished by the next class, or the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		Students have to take notes in class. Students' notebook will be graded based on the content and organization level of the notes.
	②		
	③		
	④		
	⑤		
	⑥	✓	
Others	①		Students are able to give feedback about classes.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to identify and understand actual phenomena correctly with physical interpretation. Students are able to calculate and solve questions correctly using formulae. Students are able to understand units and their dimensions for each physical value discussed in the course.	Students are able to understand physical phenomena. Students are able to calculate and solve questions using formulae. Students are able to understand units of physical values.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Vibration Understanding the Hooke's Law	Lecture and exercise	Confirming the unclear points	15
2 /	Vibration Understanding the Hooke's Law	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
3 /	Simple Harmonic Motion Understanding the motion of simple harmonic motion	Lecture and exercise Quiz	Confirming the unclear points	15
4 /	Simple Harmonic Motion Understanding the motion of simple harmonic motion	Lecture and exercise	Finishing exercise and reviewing the class	30
5 /	Simple Harmonic Motion Understanding the motion of single pendulum	Lecture and exercise Quiz	Finishing exercise and reviewing the class Reading textbook, then preview check	45
6 /	Properties of Waves Understanding the transverse and the longitudinal wave	Lecture and exercise	Confirming the unclear points	15
7 /	Properties of Waves Understanding the transverse and the longitudinal wave	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
8 /	Sounds Understanding the features of sounds	Lecture and exercise Quiz	Confirming the unclear points	15
9 /	Sounds Understanding the features of sounds	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
10 /	Sounds Understanding the standing wave and Doppler effect	Lecture and exercise Quiz	Confirming the unclear points	15

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Sounds Understanding the standing wave and Doppler effect	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
12 /	Light Understanding the concept of light	Lecture and exercise Quiz	Confirming the unclear points	15
13 /	Color Understanding the characteristics of color	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
14 /	Experiment Understanding the characteristics of light through the experiment	Experiment	Finishing exercise and reviewing the class	15
15 /	Reflection and Refraction Understanding reflection and refraction of light	Lecture and exercise	Finishing exercise and reviewing the class Reading textbook, then preview check	45
16 /	Lenses Understanding the characteristics of lenses	Lecture and exercise	Confirming the unclear points	15
17 /	Lenses Understanding the characteristics of lenses	Lecture and exercise	Confirming the unclear points	30
18 /	Mirrors Understanding the characteristics of mirrors	Lecture and exercise Quiz	Finishing exercise and reviewing the class Reading textbook, then preview check	45
19 /	Diffraction and Interference Understanding the diffraction and interference of light	Lecture and exercise	Confirming the unclear points	15
20 /	Diffraction and Interference Understanding the diffraction and interference of light	Lecture and exercise	Finishing exercise and reviewing the class	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Interference Understanding the interference of light in complex situation	Lecture and exercise Quiz	Finishing exercise and reviewing the class	30
22 /	Inquiry Based Project Researching the physical phenomenon, creating student's idea, and writing a report	Project	Continuing the assignment	15
23 /	Inquiry Based Project Researching the physical phenomenon, creating student's idea, and writing a report	Project	Continuing the assignment	15
24 /	Inquiry Based Project Researching the physical phenomenon, creating student's idea, and writing a report	Project	Finishing the report	45
25 /	Radioactivity Understanding the radioactivity and half-life	Lecture and exercise	Confirming the unclear points	15
26 /	Radioactivity Understanding the radioactivity and half-life	Lecture and exercise	Finishing exercise and reviewing class Reading textbook, then preview check	45
27 /	Nuclear fission and fusion Understanding the nuclear fission and fusion	Lecture and exercise Quiz	Confirming the unclear points	15
28 /	Nuclear fission and fusion Understanding the nuclear fission and fusion	Lecture and exercise	Finishing exercise and reviewing class	30
29 /	Exercise Understanding the learned contents	Exercise Quiz	Reviewing the contents so far. Checking wrong answer	45
30 /	Exercise Understanding the learned contents	Exercise	Reviewing the contents so far. Checking wrong answer	45
31	Final exam		Review all materials	
32	Final exam return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept.S General Required	Chemistry A	1	612400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	RASHED, Nagwa Fekri	Hakusanroku C 101.201		Friday 16:40-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Properties of Solutions	In this course, students will determine solution concentrations and colligative properties. They will identify the direction of energy transfer in chemical and physical processes and distinguish between exothermic and endothermic processes. They will also explore reversible reactions and equilibrium factors. Additionally, they will connect these theories to biochemical, industrial, and daily life applications.
2	Thermochemistry	
3	Enthalpy	
4	Entropy	
5	Reaction Rates & Equilibrium	

Course Description and Expectations for Students (10.5pt)

Chemistry A will include lectures, solving worksheets, exercises, group activities, teacher demonstrations, and experiments.
For better achievements in the course, please consider the following:
- Students' safety comes first, so be constantly aware of your safety by following the Chemistry Lab Safety Rules.
- Check eSyllabus regularly for updates.
- Preview the specified sections in the textbook and other resources before attending class.
- Keep taking notes during class time.
- Participate actively in discussions by asking questions and sharing ideas with teachers and classmates.
- Keep all the materials, such as class notes, experiment reports, worksheets, and other assignments, in a folder to build your portfolio.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: SAVVAS Chemistry (SAVVAS) ISBN 978-1-323-21353-7
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

- Analysis and problem-solving,
- Time management and organization.
- Written and oral communication.
- Monitoring/maintaining records and data.
- Teamwork and research

No.	Program Objectives	Target Abilities for Students (9pt)
①	d, h, i	Students will be able to express the concentration of solutions as molarity, percent by volume, or percent by mass.
②	d, h, i	Students will be able to describe how the freezing-point depression and boiling-point elevation are related to molality.
③	d, h, i	Students will be able to distinguish between endothermic and exothermic processes.
④	d, h, i	Students will be able to determine the amount of energy absorbed or released in a chemical or physical process.
⑤	d, h, i	Students will be able to determine whether a reaction is spontaneous.
⑥	d, h, i	Students will be able to explore the role of energy and methods used to control chemical reactions.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	20	15	0	0	20	15	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	4	0	0	5	4	38
	Ability to think, reason, and create	15	10	4	0	0	5	4	38
	Collaboration and leadership	0	0	0	0	0	0	3	3
	Announcement / Expression / Communication	0	0	3	0	0	5	0	8
	Attitude and motivation for learning	0	0	4	0	0	5	4	13

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	The final Exam is a cumulative exam for all taught chapters/topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	- Chapter General Tests will be held for each chapter.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students are expected to do the following: - Include the lesson title, student`s full name, and number at the top of each assignment page. - Submit self-checked answers to the assigned textbook and worksheet Qs on time - Turn in any other online assignment on eSyllabus on time. (A 10 % deduction per one class delay is applied due to late submission of an assignment.)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	- The purpose of the portfolio is to provide evidence of student`s chemistry knowledge, learning development, process skills, and attitudes. - Portfolio evaluation is based on documentation of evidence of learning and journal entry that reflects students' understanding of their gained learning skills. (Refer to the Portfolio Grading Criteria on eSyllabus)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①	✓	Grading criteria of this section are as follows: (Refer to the Note Taking Rubric on eSyllabus) 1- Clear and organized class notes showing all the covered topics. 2- Clear and organized lab reports of the performed experiments 3- Response in a proper manner to orally asked Qs by teachers or classmates 4- Safety procedures are followed at all times. 5- Cleanliness of laboratory and hygiene that leads to efficiency in all procedures and class flow.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to: - answer and give explanations of the essential questions by applying the taught chemistry knowledge and concepts. - design and perform experiments safely to find solutions or propose an explanation. - apply their problem-solving skills to solve complex problems whose solutions require multiple steps. - analyze, evaluate, or design a solution to a real-world problem by connecting their gained chemistry knowledge to daily lives and other subjects or fields of study.	Students are able to: - answer the essential questions by applying the taught chemistry knowledge. - perform experiments safely, make observations, analyze given data, and use scientific thinking to draw conclusions - apply their problem-solving skills to solve problems whose solutions require multiple steps. - connect their gained chemistry knowledge to daily lives and other subjects or fields of study.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Properties of Solutions -Identify the factors that affect how fast a substance dissolves. - Describe the equilibrium in a saturated solution and the factors that affect the solubility of a substance.	- Lecture - Practice problems - Exercises	- Read Lesson 16.1 - Answer Lesson 16.1 Book Qs.	30
2 /	Concentrations of Solutions - Calculate the molarity of a solution. - Describe the effect of dilution on the total moles of solute in solution. -Express solution concentration as a percent by volume or percent by mass.	- Lecture - Practice problems - Exercises	- Read Art of The Pickle p.532-533 - Answer Lesson 16.2 Book Qs.	30
3 /	Colligative Properties of Solutions - Explain how colligative properties can be explained on a particle basis. - Identify the two ways of expressing the ratio of solute to solvent in a solution.	- Lecture - Practice problems - Exercises	- Read Lessons 16.3 and 16.4 - Answer Lesson 16.3 and Lesson 16.4 Book Qs.	30
4 /	Colligative Properties of Solutions -Describe how the freezing-point depression and boiling-point elevation are related to molality.	- Lecture - Small-Scale Lab	- Read Small-Scale lab p. 545 - Prepare for Chapter 16 General Test	30
5 /	The Flow of Energy - Explain how energy changes can occur. - Explain the law of conservation of energy. - Identify two factors on which the heat capacity of an object depends.	- Chapter 16 General Test - Lecture - Class activity to compare heat transfer of different materials.	- Read Lesson 17.1 - Answer Lesson 17.1 Book Qs.	30
6 /	Measuring and Expressing Enthalpy - Describe how to measure the change in enthalpy of a reaction. - Describe how to express the enthalpy change for a reaction in a chemical equation.	- Lecture - Teacher demo of an exothermic reaction. - Group activity	- Read Lesson 17.2 - Answer Lesson 17.2 Book Qs.	30
7 /	Heat Changes of State - Compare the quantity of heat absorbed by a melting solid to the quantity released when the state of matter changes. - Describe the thermochemical changes that occur when a solution forms.	- Lecture - Lab - Practice Problems - Exercises	- Read Lesson 17.3 - Answer Lesson 17.3 Book Qs.	30
8 /	Calculating Heats of Reaction - Identify two ways to determine the heat of the reaction when it cannot be directly measured.	- Lecture - Small-Scale Lab	- Read and prepare for Small-Scale Lab p. 583 - Answer Lesson 17.4 Book Qs. -Prepare for Chapter 17 General Test.	30
9 /	Rates of Reaction - Describe how to express the rate of a chemical reaction. - Identify four factors that influence the rate of a chemical reaction.	- Chapter 17 General Test. - Quick Lab - Lecture - Exercises	- Read Quick Lab p. 600 - Read Catalytic Converter - Answer Lesson 18.1 Book Qs.	30
10 /	The progress of Chemical Reactions - Describe the relationship between the specific rate constant's value and the chemical reaction's speed. - Describe how most reactions progress from start to finish.	- Lecture - Class Activity	- Read Lesson 18.2 - Answer Lesson 18.2 Book Qs.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Reversible Reactions and Equilibrium - Describe what happens at the molecular level in a chemical system at equilibrium. -Describe what the size of an equilibrium constant indicates about a system at equilibrium.	- Lecture - Practice problems - Exercises	- Read Lesson 18.3 - Answer Lesson 18.3 Book Qs.	30
12 /	Solubility Equilibrium - Describe the relationship between the solubility product constant and the solubility of a compound. -Predict whether precipitation will occur when two solutions are mixed.	- Lecture - Teacher Demo - Practice problems - Exercises	- Read Lesson 18.4 - Answer Lesson 18.4 Book Qs.	30
13 /	Free Energy and Entropy - Identify the part entropy plays in a chemical reaction. - Identify the two factors that determine whether a reaction is spontaneous.	- Lecture - Practice problems - Exercises	- Search about “Wildfires”. - Answer Lesson 18.5 Book Qs.	30
14 /	Free Energy and Entropy - Identify the part entropy plays in a chemical reaction. - Identify the two factors that determine whether a reaction is spontaneous.	- Small-Scale Lab	- Read Small-Scale Lab p. 635 - prepare for Chapter 18 General Test.	30
15 /	General Review - Review Chapters 16, 17, and 18.	- Chapter 18 General Test - Evaluating and reflecting on the progress of one's learning. - School Questionnaire	- Prepare for the Final Exam - Finalize the Portfolio	
16 /	Final Exam	- Evaluating the progress of one's learning. - Submit the Chemistry A Portfolio.		
17 /	Returning Final Exam results.	- Return the graded exams and portfolios - Evaluating and reflecting on the progress of one's learning.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept.S General Required	Chemistry B	1	612500	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	RASHED, Nagwa Fekri	Hakusanroku C 101.201		Friday 16:40-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	pH	In this course, students will classify a solution as neutral, acidic, or basic using pH. They will describe redox reactions and relate them to electrochemical processes. Students will also explore the physical and chemical properties of organic compounds, which comprise most natural substances such as fuels, foods, and petrochemicals. Furthermore, they will connect the covered concepts to industrial and daily life applications.
2	Neutralization Reactions	
3	Redox Reactions	
4	Electrochemistry	
5	Organic chemistry	

Course Description and Expectations for Students (10.5pt)

Chemistry B will include lectures, solving worksheets, exercises, group activities, teacher demonstrations, and experiments. For better achievements in the course, please consider the following:
- Students' safety comes first, so be constantly aware of your safety by following the Chemistry Lab Safety Rules.
- Check eSyllabus regularly for updates.
- Preview the specified sections in the textbook and other resources before attending class.
- Keep taking notes during class time.
- Participate actively in discussions by asking questions and sharing ideas with teachers and classmates.
- Keep all the materials, such as class notes, experiment reports, worksheets, and other assignments, in a folder to build your portfolio.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: SAVVAS Chemistry (SAVVAS) ISBN 978-1-323-21353-7
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

- Analysis and problem-solving.
- Time management and organization.
- Written and oral communication.
- Monitoring/maintaining records and data.
- Teamwork and research.

No.	Program Objectives	Target Abilities for Students (9pt)
①	d, h, i	Students will be able to define acids, bases, and salts.
②	d, h, i	Students will be able to identify the meaning of the pH of a solution.
③	d, h, i	Students will be able to describe oxidation-reduction reactions.
④	d, h, i	Students will be able to relate redox reactions to electrochemical processes.
⑤	d, h, i	Students will be able to classify basic organic compounds.
⑥	d, h, i	Students will be able to explore the properties of organic compounds.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	20	15	0	0	20	15	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	4	0	0	5	4	38
	Ability to think, reason, and create	15	10	4	0	0	5	4	38
	Collaboration and leadership	0	0	0	0	0	0	3	3
	Announcement / Expression / Communication	0	0	3	0	0	5	0	8
	Attitude and motivation for learning	0	0	4	0	0	5	4	13

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	The final Exam is a cumulative exam for all taught chapters/topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	- Chapter General Tests will be held for each chapter.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students are expected to do the following: - Include the lesson title, student`s full name, and number at the top of each assignment page. - Submit self-checked answers to the assigned textbook and worksheet Qs on time - Turn in any other online assignment on eSyllabus on time. (A 10 % deduction per one class delay is applied due to late submission of an assignment.)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	- The purpose of the portfolio is to provide evidence of student`s chemistry knowledge, learning development, process skills, and attitudes. - Portfolio evaluation is based on documentation of evidence of learning and journal entry that reflects students' understanding of their gained learning skills. (Refer to the Portfolio Grading Criteria on eSyllabus)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①	✓	Grading criteria of this section are as follows: (Refer to the Note Taking Rubric on eSyllabus) 1- Clear and organized class notes showing all the covered topics. 2- Clear and organized lab reports of the performed experiments 3- Response in a proper manner to orally asked Qs by teachers or classmates 4- Safety procedures are followed at all times. 5- Cleanliness of laboratory and hygiene that leads to efficiency in all procedures and class flow.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to: - answer and give explanations of the essential questions by applying the taught chemistry knowledge and concepts. - design and perform experiments safely to find solutions or propose an explanation. - apply their problem-solving skills to solve complex problems whose solutions require multiple steps. - analyze, evaluate, or design a solution to a real-world problem by connecting their gained chemistry knowledge to daily lives and other subjects or fields of study.	Students are able to: - answer the essential questions by applying the taught chemistry knowledge. - perform experiments safely, make observations, analyze given data, and use scientific thinking to draw conclusions - apply their problem-solving skills to solve problems whose solutions require multiple steps. - connect their gained chemistry knowledge to daily lives and other subjects or fields of study.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Acid-Base Theories - Define an acid and a base according to Arrhenius and Lewis. - Distinguish an acid from a base in Bronsted-Lowery theory.	- Lecture - Practice Problems - Exercises	- Read Lesson 19.1 - Answer Lesson 19.1 Book Qs.	30
2 /	Hydrogen Ions and Acidity - Describe ho $[H^+]$ and $[OH^-]$ are related in an aqueous solution. - Classify a solution as neutral, acidic, or basic using pH and identify two methods to measure pH.	- Lecture - Teacher Demo - Practice Problems - Exercises	- Read “Agronomist” p. 663 - Answer Lesson 19.2 Book Qs.	30
3 /	Strength of Acids and Bases &Neutralization Reactions and Salts in Solutions - Describe how acids and bases are described as strong or weak. - Identify the products that form when an acid and a base react and the equivalence point.	- Lecture -Teacher Demo - Practice Problems - Exercises	- Answer Lesson 19.39.4 and 19.5 Book Qs. - Prepare for Chapter 19 General Test	30
4 /	The Meaning of Oxidation and Reduction - Describe what happens to a substance that undergoes oxidation and a substance that undergoes reduction. -Explain how the presence of salts and acids accelerates the corrosion of metals.	- Chapter 19 General Test - Lecture - Exercises	- Watch the eSyllabus videos. - Answer Lesson 20.1 Book Qs. - Read Fire Works p. 700.	30
5 /	Oxidation Numbers &Describing Redox Equations - State the general rules for assigning oxidation numbers. - Define oxidation and reduction in terms of a change in oxidation number - Identify the two classes of chemical reactions.	- Lecture - Practice Problems - Exercises	- Read Lesson 20.2 - Answer Lesson 20.2 Book Qs. - Read Mineral Colors p. 716	30
6 /	Electrochemical Cells - Describe how a voltaic cell produces electrical energy. - Identify the current applications that use electrochemical processes to produce electrical energy.	- Lecture - Practice Problems - Exercises	- Read Lesson 21.1 - Answer Lesson 21.1 Book Qs.	30
7 /	Half-cells and Cell Potentials - Identify what causes the electrical potential of an electrochemical cell. - Determine the standard reduction potential of a half-cell and if a redox reaction is spontaneous or nonspontaneous.	- Lecture - Exercises - Practice Problems - Exercises - Teacher Demo	- Read “A Lemon Battery” p.744. - Answer Lesson 21.2 Book Qs.	30
8 /	Electrolytic Cells - Distinguish between electrolytic and voltaic cells. - Describe some applications that use electrolytic cells.	- Lecture - Exercises - Practice Problems - Exercises - Teacher Demo	- Read Quick Lab p.750 and Small-Scale Lab p. 752 - Prepare for Chapter 20 &21 General Test.	30
9 /	Hydrocarbons - Explain why a carbon atom forms four covalent bonds. - Identify two possible arrangements of carbon atoms in an alkane.	- Chapters 20 & 21 General Test - Lecture - Class Activity - Practice Problems	- Read Lesson 22.1 - Answer Lesson 22.1 Book Qs.	30
10 /	Unsaturated Hydrocarbons and Isomers - Describe the structural characteristics of alkenes and alkynes -Explain how the properties of constitutional isomers differ. -Identify two types of stereoisomers.	- Lecture - Class Activity - Practice Problems	- Read Lesson 22.2 and 22.3 - Answer Lessons 22.2 and 22.3 Book Qs.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Hydrocarbon Rings and Hydrocarbons from Earth`s Crust - Identify the general structure of a cyclic hydrocarbon and bonding in a benzene ring - Identify the hydrocarbons in natural gas and the first step in refining petroleum.	- Lecture - Practice Problems - Exercises	- Read Lessons 22.4 and 22.5 - Answer Chapter 22	30
12 /	Introduction to Functional Groups - Classify organic compounds. -Identify the general formula of a halocarbon. -Describe how substitutional reactions are used in organic chemistry.	- Lecture - Teacher Demo	- Read Lesson 23.1 - Answer Lesson 23.1 Book Qs	30
13 /	Alcohols, Ethers, and Amines - Identify the general formula of an alcohol. - Explain how addition reactions are used in organic chemistry. - Identify the general formula of an ether. - Identify the general formula of an ester.	- Lecture -Practice Problems - Exercises	- Read Lesson 23.2 - Answer Lesson 23.2 Book Qs.	30
14 /	Carbonyl Compounds and Polymers - Identify the structural characteristics that an aldehyde and acetone share. - Identify the general formula of carboxylic acid and an ester. -Describe how polymers are formed.	- Lecture - Practice Problems - Exercises -Teacher Demo	- Read Lessons 23.3 and 23.4 - Prepare for Chapter22 & 23 General Test.	30
15 /	General Review - Review Chapters 19, 20, 21, 22 and 23	- Chapters 22 &23 General Test - Evaluating and reflecting on the progress of one's learning. - School Questionnaire	- Prepare for the Final Exam - Finalize the Portfolio	
16 /	Final Exam	- Evaluating the progress of one's learning. - Submit the Chemistry B Portfolio.		
17 /	Returning Final Exam Results.	- Return the graded exams and portfolios - Evaluating and reflecting on the progress of one's learning.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Biology A	1	624500	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	GATRI, Dorsaf	Hakusanroku C 101.201		Wednesday: 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Environment	In this course students will understand the basics of environmental science. Students will explore and investigate the interrelationships of the natural world and analyze environmental problems, both natural and human-made. Students will gain awareness about environmental issues and have the foundations for an informed and active participation of engineers in the protection of the environment.
2	Ecology	
3	Animal	
4	Pollution	
5	Evolution	

Course Description and Expectations for Students (10.5pt)

This course will address a wide range of societal and environmental issues, including ecosystems, air pollution, soil salinization, earthquakes, resource depletion etc. This course will include learning activities, documentary viewing, inquiry-based lectures discussions and debates. Some time will be spared at the end of the class to work on the worksheets. PowerPoint presentations will accompany each class and will be available for the students on e-syllabus. To achieve the objectives of this course students are invited to be interactive, curious and creative. Students are expected to turn in their worksheets and prepare a presentation.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books: Environment, The Science Behind the Stories, 7th Edition,
ISBN 10: 0136451470 ISBN; 13: 9780136451471
reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic computer skills.
Analysis and problem-solving skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Students will be able to describe the field of environmental sciences
②	h, i	Students will be able to understand the basics of taxonomy
③	h, i	Students will be able to observe and use a microscope properly.
④	h, i	Students will be able to understand how shared resources can be depleted and how to sustainably manage them.
⑤	h, i	Students will understand the effects of soil salinization on seed germination
⑥	h, i	Students will develop an understanding of the number and type of particles in the air around them

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	40	60	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	10	20	0	0	30
	Ability to think, reason and create	0	0	0	10	20	0	0	30
	Collaboration and leadership	0	0	0	10	10	0	0	20
	Announcement / Expression / Communication	0	0	0	10	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	10	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		There will be a presentation to assess the air pollution activity. In the presentation the students will analyze the results of the experiment and discuss its limitation This presentation will account for 40% of the total grade. PowerPoint slides or posters will be made as a visual support to the presentation.
	②		
	③		
	④	✓	
	⑤		
	⑥		
Works	①	✓	There will be worksheets to complete on the subject matters taught in the class. This can be completed in class or as homework by the following class. This will count for 60% of the total grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will understand the deep interconnectivity between the different organisms and their environment. Students will foster critical thinking skills in relation to their environment Students will articulate an understanding of relevant concepts that underlie environmental processes. Students will learn how to ask questions, investigate, discuss, collaborate, cooperate and reach their own conclusions.	Students will gain awareness about environmental issues. Students will be aware of the importance of protecting the environment while utilizing its resources for human needs.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction to Environmental sciences part I	- Interactive lecture - Documentary viewing part I - Discussion		0
2 /	Introduction to Environmental sciences part II	- Interactive lecture - Documentary viewing part II - Discussion	Worksheets	30
3 /	Case study; The Tohoku earthquake: has it shaken the world’s trust in nuclear power?	- Discussion - Debate	Worksheet	30
4 /	Tragedy of the commons	- Tragedy of the common’s activity	Laboratory report	30
5 /	Animal classification part I	- Inquiry-based lecture	Worksheet	30
6 /	Animal classification part II	- Inquiry-based lecture	Worksheet	30
7 /	Ecological communities part I	- Inquiry-based lecture	Worksheet	30
8 /	Ecological communities part II	- Owl pellet dissection activity	Laboratory report	30
9 /	Microscope observation	- Microscope observation activity	Laboratory report	30
10 /	Soil salinization lab part I	- Soil salination laboratory experiment	Laboratory report	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Soil salinization part II	- Soil salinization laboratory experiment	Laboratory report	30
12 /	Air pollution part I	- Air pollution laboratory experiment	Presentation preparation	30
13 /	Air pollution part II	- Air pollution laboratory experiment	Presentation preparation	30
14 /	Air pollution part III	- Air pollution laboratory experiment	Presentation preparation	30
15 /	Air pollution assessment presentation	- Argument-based inquiry Presentations	Presentations	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Biology B	1	624600	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	GATRI, Dorsaf	Hakusanroku C 101.201		Wednesday: 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Climate	In this course students will learn how and why is the climate system changing and develop a critical thinking approach to try to answer some of the most pressing global issues that we all face. Students will also be able to understand the importance the SDGs play in mitigating climate change. This course will lay the foundation for engineers to ensure human needs are met in a sustainable way.
2	Change	
3	Footprint	
4	Sustainability	
5	Fuels	

Course Description and Expectations for Students (10.5pt)

This course will address biodiversity, urbanization, climate policies, sustainability etc. through inquiry-based lectures, laboratory work, documentaries viewing, discussion and debate. Some time will be spared at the end of the class to work on the worksheets. PowerPoint presentations will accompany each class and will be available for the students on e-syllabus. To achieve the objectives of this course students are invited to be interactive, curious and creative. Students are expected to turn in their worksheets and prepare a presentation.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

reference books: Environment, The Science Behind the Stories, 7th Edition,
ISBN 10: 0136451470; ISBN 13: 9780136451471

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic computer and note taking skills
Analysis and problem-solving skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Students will be able to explain the factors that influence global climate
②	h, i	Students will be able to characterize human influences on the atmosphere and on the climate
③	h, i	Students will be able to explain what is meant by ecological footprint
④	h, i	Students will be able understand the concept of sustainability
⑤	h, i	Students will be able to understand general environmental policies
⑥	h, i	Students will be able to assess the causes and implications of ocean acidification

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	40	60	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	10	20	0	0	30
	Ability to think, reason and create	0	0	0	10	20	0	0	30
	Collaboration and leadership	0	0	0	10	10	0	0	20
	Announcement / Expression / Communication	0	0	0	10	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	10	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①	✓	There will be a presentation about different environmental issues and different possible solutions to mitigate them and/or increase ecosystems resilience to face them. Students will be free to choose any environmental issue they feel the most drawn to. This presentation will account for 40% of the total grade. PowerPoint slides or posters will be made as a visual support to the presentation.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Works	①	✓	There will be worksheets to complete on the subject matters taught in the class. This can be completed in class or as homework by the following class. This will count for 60% of the total grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will be able to articulate the different issues with climate change and develop practical, team work and problem-solving skills to help mitigate its most dangerous impacts. Students will help find solutions to increase the resilience of ecosystems and societies to the climate changes that cannot be avoided. Students will be able describe the effects of global warming on the ecosystems, humans and cities. Students will be able to understand and debunk the common misconceptions about climate change. Students will be able to understand the concept of sustainability and suggest ways to implement a sustainable lifestyle on campuses.	Students will be able to understand the main issues with climate change and suggest ways we may respond to it. Students will understand the concept of sustainability and its importance in mitigating the effects of climate change.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction to climate change part I	- Lecture - Documentary viewing - Discussion		0
2 /	Introduction to climate change part II	- Lecture - Documentary viewing - Discussion	Worksheet	30
3 /	Case study: Climate change deniers	- Debate	Debate preparation	30
4 /	Climate change and cities	- Experimental laboratory design	Laboratory report	30
5 /	Tree rings and climate change	- Laboratory experiment	Laboratory report	30
6 /	Ecological footprint	- Inquiry-based lecture	Worksheet	30
7 /	Environmental issues and the search for a solution	- Self-study	Presentation preparation	30
8 /	Environmental issues and the search for a solution	- Presentations	Presentations	10
9 /	Fossil fuels	- Cookie mining - actvity	Laboratory report	30
10 /	Case study: will Sweden free itself from fossil fuel?	- Discussion	Worksheet	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Sustainable solutions on campuses	- Interactive lecture - Discussion	Worksheet	30
12 /	Environmental policies: The stratospheric ozone depletion response	- Interactive lecture	Worksheet	30
13 /	Ocean acidification part I	- Laboratory experiment		0
14 /	Ocean acidification part II	- Laboratory experiment	Laboratory report	30
15 /	Ocean acidification part III	- Laboratory experiment	Laboratory report	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IIA	1	612800	First	Exercises / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAKIMOTO, Akihiro / CADZOW, Philip	Hakusanroku C 101 Gym		Friday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Running	The student will increase their stamina and energy for everyday life.
2	Basketball	The student will develop their basketball skills
3	Netball	The student will increase their understanding of invasion game tactics
4	Handball	The student will grow their teamwork skills through working in cooperation with other students.
5	Teamwork	

Course Description and Expectations for Students (10.5pt)

In the beginning of each class, students will clean the gym and warm up. Pass mark is over 50%

Training:

Weeks 1 to 5 will be running. When it rains, we will use the bouldering room to train.
Weeks 5 to 10 will be leg training with use of bodyweight exercises.
Weeks 10 to 15 will again be running. When it rains, we will use the bouldering room to train.

Sports:

Weeks 1 to 5 will be working on basketball skills and zone defence with netball games
Weeks 5 to 10 will be spent on passing skills and teamwork through handball.
Weeks 11 to 15 will be focussed on basketball games and basketball skills

The expectation is for students to be on time for class in the correct uniform, and fully participate in the activities of class to the best of their abilities.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

School sports uniform, Indoor sports shoes, Outdoor sports shoes, Water bottle

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No prior skills or knowledge are required for this course.

No.	Program Objectives	Target Abilities for Students (9pt)
①	D	Students will learn how to train their body correctly for a healthy life.
②	F	Students will be able to learn from failure and develop fortitude.
③	I	Students will develop confidence in their abilities and work with a sincere heart.
④	I	Students will learn the value of enjoying sports and the lifelong benefits of exercise.
⑤	C	Students will be able to support each other in learning new skills.
⑥	B	Students will become accustomed to working for the good of others.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	0	0	45	45	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	10	0	0	0	0	0	10
	Ability to think, reason and create	0	0	0	0	0	15	0	15
	Collaboration and leadership	0	0	0	0	15	15	0	30
	Announcement / Expression / Communication	0	0	0	0	15	0	0	15
	Attitude and motivation for learning	0	0	0	0	15	15	0	30

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		**Teamwork Quiz: 10pt** 5 worksheets worth 2pts each.
	②		
	③		
	④		
	⑤	✔	
	⑥	✔	
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		**Sports:** **Tactics and Team play 15pt.** Complete the assigned game each class. 1pt per game. **Game skills:15pt.** Work on Basketball skills each class. 1pt per training session **Cleaning and setting up: 15pt.** 1 point each class for cleaning and setting up the equipment.
	②	✔	
	③	✔	
	④		
	⑤		
	⑥	✔	
Portfolios	①	✔	**Warm up: 15pt.** **Training: 30pt.** Each class the students will be put into groups to complete exercise assignments. For example: In a group of 3 students, collectively run 10 laps in the 20 minutes given. 0pt = Attempted but less than 50%. 1pt = More than 50% completed. 2pt = 100% Completed. The first testing run, and climbing will be worth 2 points.
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		
Others	①		Not having correct PE clothes will result in not being able to participate in the lesson and hence missing out on points. Reasonable absences will be appointed makeup work for time missed. Injuries will be given alternate work for the points they would otherwise miss.
	②		
	③		
	④	✔	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Arrives on time and in the right uniform. Cleans or sets up for class to a high standard (properly shakes the mops and nets are tied nicely. Completes the daily warm up with proper care and diligence. Great effort during training, going above the requirements for the day. Completes the small learning games with high concentration and looks for opportunities to encourage other students and their learning.	Arriving on time, in the correct uniform. Cleans or sets up for class to a good standard. Completes the daily warm up. Enough effort in training to complete the day's challenge with minimal disturbance to others. Completes the small learning games to the best of their effort.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus explanation Run test/Bouldering Basketball – skills Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
2 /	Running/Bouldering Basketball – skills Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
3 /	Running/Bouldering Basketball – skills Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
4 /	Running/Bouldering Basketball – skills Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
5 /	Runing/Bouldering Basketball – skills Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
6 /	Leg training Basketball – skills Handball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
7 /	Leg training Basketball – skills Handball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
8 /	Leg training Basketball – skills Handball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
9 /	Leg training Basketball – skills Handball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
10 /	Leg training Basketball – skills Handball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Running/Bouldering Basketball – skills Basketball games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
12 /	Running/Bouldering Basketball – skills Basketball games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
13 /	Running/Bouldering Basketball – skills Basketball games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
14 /	Running/Bouldering Basketball – skills Basketball games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
15 /	Running/Bouldering Basketball – skills Basketball games Quiz	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IIB	1	612900	Second	Exercises / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	TAKIMOTO, Akihiro / CADZOW, Philip	Hakusanroku C 101 Gym		Friday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Tournament	The student will increase their strength and energy for everyday life. The student will develop their ability to cope under pressure, and learn to manage their emotions that come from competition. The student will develop their proprioception through various sport The student will grow their teamwork skills through working in cooperation with other students.
2	Bouldering	
3	Badminton	
4	Basketball	
5	Volleyball	

Course Description and Expectations for Students (10.5pt)

In the beginning of each class, students will clean the gym and warm up. Pass mark is over 50%

Weeks 1 and 2 will be a bouldering game
Weeks 3, and 4 will be a badminton doubles game
Weeks 5 and 6 will be a badminton singles game
Weeks 7, and 8 will be a netball game
Weeks 9 and 10 will be a basketball game
Week 11 will be a soft volleyball game
Week 12 will be an indiaca game
Weeks 13 and 14 will be a volleyball game
Week 15 will be an outside rugby game

Required Materials (textbooks, reference books, reserved books) (10.5pt)
School sports uniform, Indoor sports shoes, Outdoor sports shoes, Water bottle

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No prior skills or knowledge are required for this course, but having a good base skill in sport is recommended.

No.	Program Objectives	Target Abilities for Students (9pt)
①	D	Students will learn how to train their body correctly for a healthy life.
②	F	Students will be able to learn from failure and develop fortitude.
③	I	Students will develop confidence in their abilities and work with a sincere heart.
④	I	Students will learn the value of enjoying sports and the lifelong benefits of exercise.
⑤	C	Students will be able to support each other in learning new skills.
⑥	B	Students will become accustomed to working for the good of others.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	0	55	45	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	0	15	0	15
	Ability to think, reason and create	0	0	0	0	0	30	0	30
	Collaboration and leadership	0	0	0	0	20	0	0	20
	Announcement / Expression / Communication	0	0	0	0	20	0	0	20
	Attitude and motivation for learning	0	0	0	0	15	0	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✔	**Sports: 40pt** Bouldering 6pt, badminton doubles 6pt, badminton singles 6pt, netball 6pt, basketball 6pt, soft volleyball 2pt, indiaca 2pt, volleyball 6pt, Points allocated for participating in the games. **Cleaning and setting up: 15pt.** 1 point each class for cleaning and setting up the equipment.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥	✔	
Portfolios	①	✔	**Warm up: 15pt** Complete the sport specific warmup **Teamwork:30pt** Basketball, Badminton doubles, and Volleyball will have a worksheet to complete on teamwork worth 10pt each.
	②	✔	
	③		
	④	✔	
	⑤	✔	
	⑥	✔	
Others	①		Not having correct PE clothes will result in not being able to participate in the lesson and hence missing out on points. Reasonable absences will be appointed makeup work for time missed. Injuries will be given alternate work for the points they would otherwise miss.
	②		
	③		
	④	✔	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Arrives on time and in the right uniform. Cleans or sets up for class to a high standard (properly shakes the mops, and balls air pressure is checked. Great effort during training, going above the requirements for the day. Completes the small learning games with high concentration and looks for opportunities to encourage other students and their learning.	Arriving on time, in the correct uniform. Cleans or sets up for class to a good standard. Enough effort in training to complete the day's challenge with minimal disturbance to others. Completes the small learning games to the best of their effort.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus introduction Bouldering games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
2 /	Bouldering games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
3 /	Badminton doubles games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
4 /	Badminton doubles games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
5 /	Badminton singles games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
6 /	Badminton singles games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
7 /	Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
8 /	Netball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
9 /	Basketball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
10 /	Basketball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Soft volleyball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
12 /	Indiaca games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
13 /	Volleyball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
14 /	Volleyball games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100
15 /	Outside team sport games	Lecture and Active Learning/ online	Review class and conduct self-training in both fitness and sport skill.	100

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	ビジュアルアーツII	1	624700	前学期	実験・実習／履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	小髙有普	白山麓C： 101.201		月～金16:30-17:30

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	感じる力	作品に込められた作者の意図あるいは制作に至った経緯、制作行程などから芸術の創造に対する思慮を深め、観察力・洞察力を養う。学生は、自己が表現者となり、個々の表現物についての言語化を図りながら、論理的思考能力を養う。最終的には、ビジュアル表現による変換をもって、理論と感性の調和による高度な成果の創出ができることを目標とする。エンジニアとして幅広い視野をもち、創造性の発揮と自己解決に至るため、気づき能力と具現化能力の育成を行う。
2	着眼点	
3	発想	
4	デザインプロセス	
5		

授業の概要および学習上の助言

①アイデアの言語化
　創造力を高めるために広い視野をもつ重要性を理解する。
　創造力を高めるために多くの情報をもつ重要性を理解する。
　創造したものの有効性なものに導くための論理的思考展開をする。
②アイデアの視覚化による思考
　創造力を高めるためには視覚化することが重要であることを理解する。（スケッチやモデルによる思考展開）
③アイデアの伝達
　自分の作品における思いを表現することにより学生の伝達スキルを磨く。
④作品の鑑賞
　15週は全員の作品をスクリーンで発表し、講評を受ける。これは自分以外の全作品を見て、評価し合うことでお互いの創造力を刺激し高めることを目的としている。

【教科書および参考書・リザーブドブック】
教科書：
参考書：
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

丁寧に考え、丁寧に作ろうとする姿勢が必要です。
グラフィックソフトを使用するので作業時に使えるように復習しておくことが必要です。
すべての課題を提出期限に間に合うように必ず提出すること。
未提出課題が1つでもある場合、単位を認めない。
提出期限を守れなかった場合は減点となる。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	g	様々な角度からものごとを観察し、考えることができる
②	g	何が有効なアイデアなのかを見極めることができる
③	f	重要なポイントを整理し、簡潔に表現することができる
④	i	グラフィックソフトで何が出来るかを理解することができる
⑤	f,g,i	パネル化による視覚伝達を通して伝達スキルの重要性と有効性を理解できる
⑥	f	表現者の創造的活動への思いを理解することができる

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	0	40	25	25	10	0	100
総合力指標	知識を取り込む力	0	0	10	0	0	5	0	15
	思考・推論・創造する力	0	0	20	15	10	0	0	45
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	5	5	10	0	0	20
	学習に取組む姿勢・意欲	0	0	5	5	5	5	0	20

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①		
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①	レ	アイデアを確定するまでの内容とプロセスを評価 対象：１回～４回の課題
	②	レ	
	③	レ	
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①		コンセプトを反映したモデルによる具現化を評価 対象：５回～９回の課題
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
作品	①		グラフィックによる視覚伝達スキルと内容を評価 対象：１０回～１５回の課題(最終日に学生の発表を通じてルーブリック評価を行う)
	②		
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
ポートフォリオ	①		創造的活動に対する取り組み姿勢を評価 対象：15週の学習レポート
	②		
	③		
	④		
	⑤		
	⑥	レ	
その他	①		
	②		
	③		
	④		
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
①構成力：深い思考による有効なアイデアとストーリー設定ができる ②展開力：思い描いたアイデアを有効な形に具現化することができる（モデル化） ③具現化：グラフィックソフトを介し優れた商品イメージを作る事ができる（完成イメージ） ④伝達力：グラフィックソフトを多様な場面で有効に利用することができる ⑤総合力：自分の発想内容をとても理解しやすく表現し伝える事ができる	①構成力：アイデアとストーリー設定ができる ②展開力：思い描いたアイデアを形に具現化することができる（モデル化） ③具現化：グラフィックソフトを介し商品イメージを作る事ができる（完成イメージ） ④伝達力：グラフィックソフトを利用することができる ⑤総合力：自分の発想内容を表現し伝える事ができる

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	ガイダンス 芸術分野の思想とものづくりの思想について 観察 視点を変えてモノを見ることを知る	講義 観察と写真撮影、写真のまとめ	予習： 復習：作業遅延分の実施、調査①	20
2 ／	調査② テーマについての情報収集とまとめ	講義 インフォグラフィックによる構造の視覚化 レポート	予習：イラストレータの使い方 復習：作業遅延分の実施	30
3 ／	芸術や文化と思想を理解し、自らの考えを表現① アイデアをストーリーとしてまとめる	講義 インフォグラフィックによる構造の視覚化	予習：キーワードの抽出 復習：ストーリーの完成	30
4 ／	芸術や文化と思想を理解し、自らの考えを表現① 言語化したアイデアを視覚表現する	講義 スケッチ、モデル作成	予習：テーマの決定 復習：アイデアスケッチ完成	30
5 ／	芸術や文化と思想を理解し、自らの考えを表現① 言語化したアイデアを視覚表現する	講義 モデル作成	予習：制作計画をたてる 復習：アイデアを展開する	30
6 ／	芸術や文化と思想を理解し、自らの考えを表現① 言語化したアイデアを視覚表現する	講義 モデル作成	予習：制作計画のチェック 復習：作業遅延分の実施	30
7 ／	芸術や文化と思想を理解し、自らの考えを表現① 言語化したアイデアを視覚表現する	講義 モデル作成	予習：制作計画のチェック 復習：作業遅延分の実施	30
8 ／	芸術や文化と思想を理解し、自らの考えを表現① 言語化したアイデアを視覚表現する	講義 モデル作成	予習：制作計画のチェック 復習：１次モデルを完成する	30
9 ／	芸術や文化と思想を理解し、自らの考えを表現① 個々のモデルを評価 多様な意見を理解し俯瞰的に本質を見つめ、思考する モデルのブラシュアップ	講義 スケッチ、モデル作成	予習：計画のチェック 復習：改良モデルを完成する	30
10 ／	芸術や文化と思想を理解し、自らの考えを表現② 相手の納得や感動を引き出す表現力(思考の概念図化) 合成データ作成（完成イメージ）	講義 合成作業	予習：ソフトの使い方について 復習：作業遅延分の実施	40

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	芸術や文化と思想を理解し、自らの考えを表現② 合成データ作成（完成イメージ）	講義 合成作業	予習：制作計画のチェック 復習：作業遅延分の実施	30
12 ／	芸術や文化と思想を理解し、自らの考えを表現② 伝達手段を学びまとめる グラフィックコミュニケーション （パネルデータ作成）	講義 パネルデータ作業	予習：制作計画のチェック 復習：作業遅延分の実施	30
13 ／	芸術や文化と思想を理解し、自らの考えを表現③ 伝達手段を学びまとめる グラフィックコミュニケーション （パネルデータ作成）	講義 パネルデータ作業	予習：制作計画のチェック 復習：作業遅延分の実施	30
14 ／	芸術や文化と思想を理解し、自らの考えを表現③ 伝達手段を学びまとめる グラフィックコミュニケーション （パネルデータ作成）	講義 パネルデータ作業	予習：制作計画のチェック 復習：作業遅延分の実施	30
15 ／	成果発表 自己点検・自己評価	プレゼンテーション 自己点検	予習：発表準備	20

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科 目 名	単位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	パフォーミングアーツ	1	624800	前学期	実験・実習 ／ 履修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
2年	魚住　知子	白山麓C 101.201		授業時予約

授 業 科 目 の 学 習 教 育 目 標

	キーワード	学習教育目標
1	表現力	グローバルイノベーターとして国際社会で活躍するには、異文化の人々と協働の際のコミュニケーションが大切である。そのコミュニケーションを豊かで強力なものにするには、表現力が不可欠である。本授業では、歌唱、ナレーション、プレゼンテーションなどを学び体験し、各学生が独創的で強力な表現力を身につけることを目標とする。
2	独創性	
3	歌唱	
4	鑑賞	
5	パフォーマンス	

授業の概要および学習上の助言

一年生で受講したパフォーミングアーツＩの内容をさらに拡大し表現力を身につける。一年生で学習した正しい発声法を用いての歌唱を引き続き行うことにする。スタンダードナンバー、Ｊ－ＰＯＰ、ミュージカルナンバー、アニメソングなどを練習する。また、プレゼンテーション技術やアニメの吹き替えなども学び体験する。人前で発表することへの恥ずかしさを乗り越え挑戦を続けていく。クラスメイトのパフォーマンスに対して、常に敬意をもちまた前向きなアドバイスや感想が述べられるクラス環境と人間関係を構築する努力をお互い行うことが大切である。

【教科書および参考書・リザーブドブック】
教科書：
参考書：
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

プロのパフォーマンス、例えばミュージシャン、ダンサー、バラエティ番組の進行役などを、テレビで見ておくことが授業を受けることに大きく役立つ。人前で表現できる各自の得意分野について考えてみる。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	f	正しい発声法を身につけ、歌唱できるようになる。
②	e	ナレーションや朗読ができるようになる。
③	i	歌唱やプレゼンテーションの際の表現技術を身につけることができるようになる。
④	d	クラスメイトのパフォーマンスをまじめに敬意をもって鑑賞できるようになる。
⑤		
⑥		

達 成 度 評 価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	0	0	65	0	0	35	100
総合力指標	知識を取り込む力	0	0	0	0	0	0	0	0
	思考・推論・創造する力	0	0	0	0	0	0	0	0
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	0	45	0	0	20	65
	学習に取組む姿勢・意欲	0	0	0	20	0	0	15	35

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①		
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①		
	②		
	③		
	④		
	⑤		
	⑥		
成果発表 （口頭・実技）	①	レ	45%: 授業最終日に行われる発表会で、各自が準備し練習してきた歌唱、プレゼンテーション、朗読、楽器演奏、ダンスなどの態度、表現力、技術そして伝達力を評価する。 20%: 授業最終日に行われる発表会に取り組む姿勢と意欲、努力およびそれぞれの工夫を評価する。
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		
	②		
	③		
	④		
	⑤		
	⑥		
その他	①	レ	20%: 各授業で学習したパフォーマンスの発表時における態度、表現力、伝達力を評価する。 表現力そして伝達する力を評価する。 15%: 各授業で学習したパフォーマンスの発表時における取り組み、姿勢、意欲、工夫を評価する。 評価する。
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
各授業での課題のパフォーマンスで、恥ずかしがらすに堂々とクラスの見本となるパフォーマンスを行うことができる。 最後の授業での発表会に、クラス中の大きな驚きと称賛の声を得るパフォーマンスを披露することができる。	各授業での課題のパフォーマンスを、勇気をもって挑戦することができる。 最後の授業での発表会のための準備と練習を行い、自分なりの表現力をもってパフォーマンスをやり遂げることができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	発声練習（腹式呼吸） 歌唱に挑戦 「君は薔薇より美しい」 「わっしょい　お祭り」	講義、発声、歌唱		
2 ／	歌唱の練習「New York New York」 楽器を用いて練習 発表	練習、歌唱、鑑賞		15
3 ／	課題曲の理解 発声練習（腹式呼吸） 歌唱に挑戦「New York New York」 学生選曲の課題曲（１） 「Habit」 プロピアニストの伴奏で歌う	練習、歌唱、鑑賞	発声練習を行う	15
4 ／	歌唱の練習「New York New York」 楽器を用いて練習 学生選曲の課題曲（１） 「Habit」 プロピアニストの伴奏で歌う	練習、歌唱、鑑賞	次回の課題曲（２）を聴く	30
5 ／	課題曲の理解 発声練習（腹式呼吸） 歌唱に挑戦 学生選曲の課題曲（２） 「イマジン」「スマイル」	練習、歌唱、鑑賞	発声練習を行う	15
6 ／	歌唱の練習 楽器を用いて練習 学生選曲の課題曲（２）発表 「イマジン」「スマイル」	練習、歌唱、鑑賞	次回の課題曲（３）を聴く	30
7 ／	吹き替えの理解 吹き替えの練習 吹き替えに挑戦	練習	吹き替えについて調べる	15
8 ／	吹き替えの練習 吹き替えの収録	練習、収録	収録	30
9 ／	課題曲の理解 発声練習 歌唱に挑戦 学生選曲の課題曲（３） 「オーネステイー」「エイリアンズ」	練習 歌唱 鑑賞	発声練習を行う	15
10 ／	歌唱の練習 楽器を用いて発表 学生選曲の課題曲（３）発表 「オーネステイー」「エイリアンズ」	練習 歌唱 鑑賞	次回の課題曲（４）を聴く	30

授業明細表

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	課題曲の理解 発声練習（腹式呼吸） 歌唱に挑戦 学生選曲の課題曲（４） 「I just call to say I love you」	講義、発声、歌唱	発声練習を行う	15
12 ／	歌唱の練習 楽器を用いて練習 学生選曲の課題曲（４）発表 「I just call to say I love you」	練習、歌唱、鑑賞	課題曲（４）を歌う	15
13 ／	司会を学ぶ 司会練習 司会に挑戦 学生選曲の課題曲 「猫」	講義	司会練習	15
14 ／	パフォーマンス発表 パフォーマンス鑑賞	練習、発表	司会発表	115
15 ／	パフォーマンス発表 パフォーマンス鑑賞	発表、鑑賞	クラスメイトと互いの発表について話す	15

2024 Syllabus

Instructor with " ∗ "means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design IIA	2	710300	First	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	MATSUSHITA, Omihito/OGAWA, Hayato/ KUSHIMA, Yoshihiro / KODAKA, Arihiro	Hakusanroku C: 101.201		Mon – Friday: 4:30 – 5:30 pm

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Problem-solving	In this course, students will practice with a problem-solving project, creating locally appropriate solutions and added values around Hakusanroku area. The students will learn the approaches to project planning, user research, and idea generation utilizing its local resources. The students will also cultivate abilities to find real problems with deeper insights and develop communication skills to propose solutions to communities appropriately.
2	Locally appropriate solutions	
3	Project planning	
4	User research	
5	Communication skills	

Course Description and Expectations for Students (10.5pt)

The students will work on problem-solving projects themed under the societal, natural, or industrial environments of Hakusanroku area. The projects will mainly focus on agri-business utilizing local resources and technology development projects focusing on drone controls that have been developed for the animal damage prevention system. Based on the group's project scopes, each group will work on their plans for business design and implementation, as well as technology development using AI, IoT, and other appropriate technologies. The work will be continued to the EDIIB course.

Advice on taking this class
- Act with appropriate manners and behaviors as important aspects of conducting research in local areas.
- Submit assignments on time. There will be penalty points if you are late to submit your assignments.
- Understand that this project is not a sequential process, rather it is a process of going back and forth by trials and errors
- Participate in class work autonomously. Don't afraid to challenge yourself and feel free to ask questions.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None
Reference books: None
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

EDIA & IB: Team, task, and time management skills.
Understanding of design and user research methodology and mindsets.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, e, h	Students will be able to understand issues from different perspectives which the local communities face.
②	a, d, g	Students will be able to generate locally appropriate solutions or to develop technological functions to problems with teams.
③	a, d, g	Students will be able to make their idea concepts and goal plans to convey their important ideas.
④	f	Students will be able to deliver their findings and ideas effectively.
⑤	c, d	Students will be able to practice a problem-solving project efficiently using proper management methods.
⑥	i	Students will be able to show their attitudes to reflect on their own work objectively.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	20	30	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	5	5	10	4	0	24
	Ability to think, reason and create	0	0	5	5	10	4	0	24
	Collaboration and leadership	0	0	5	5	5	4	0	19
	Announcement / Expression / Communication	0	0	5	5	5	4	0	19
	Attitude and motivation for learning	0	0	10	0	0	4	0	14

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	レ	Report will include individual work report and personal reflection on own learning experience about project progress and outcomes. The format of the report will be announced by the instructors.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Presentations	①	レ	Students will give oral progress and final reports of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles. Teachers will grade on presentation content and presentation etiquette. Rubric will be provided as a group.
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
Works	①	レ	The format of works can be physical prototypes of solutions, concept diagrams, sketches, and other styles of visual aids and writing forms. The format will be announced by the instructors.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
Portfolios	①		Portfolios will include personal reflection on own leadership practice and learning experience through the project. The format of the portfolio will be announced by the instructors.
	②		
	③		
	④		
	⑤	レ	
	⑥	レ	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Student can define an appropriate problem statement logically based on their research data. - Student can propose creative, locally appropriate solutions. - Students can effectively work together with the team for a project.	- Student can define a problem statement based on their research data. - Student can propose locally appropriate solutions. - Students can work together with the team for a project.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	- Class Guidance - Introduction to SDGs, local revitalization, and smart agriculture - Group organization - Project goals and plans - Engineering Process - Leadership and followership	Lecture and group work	Prepare as instructed	
2 /	Introduction to Pixhawk PX4 Controller/Chassis Design and base idea creation 1 - Overview of UGV (Unmanned Ground Vehicle) systems and components - Introduction to Pixhawk PX4 controller: history, features, and applications - Installation and setup of Pixhawk PX4 software (QGroundControl)		Finish class assignments and reflection	20
3 /	Agricultural and system environment 1 - Field arrangement - Farming situation in the area	Lecture and group work	Prepare as instructed	15
4 /	Introduction to Pixhawk PX4 Controller/Chassis Design and base idea creation 2 - Overview of UGV (Unmanned Ground Vehicle) systems and components - Introduction to Pixhawk PX4 controller: history, features, and applications - Installation and setup of Pixhawk PX4 software (QGroundControl)		Finish class assignments and reflection	30
5 /	Agricultural and system environment 2 - Field arrangement and planting - Animal damage measurement 1	Lecture and group work	Prepare as instructed	15
6 /	Understanding Pixhawk PX4 Software 1 - Mission planning and execution with QGroundControl - Understanding flight modes and safety features - Introduction to MAVLink communication protocol - Hands-on exercises with simulation		Finish class assignments and reflection	20
7 /	Agricultural and system environment 3 - Animal damage measurement 2	Lecture and group work	Prepare as instructed	15
8 /	Understanding Pixhawk PX4 Software 2 - Mission planning and execution with QGroundControl - Understanding flight modes and safety features - Introduction to MAVLink communication protocol - Hands-on exercises with simulation		Finish class assignments and reflection	30
9 /	Agri-business sales and local resource utilization planning 1	Lecture and group work	Prepare as instructed	15
10 /	Sensors and Telemetry 1 -Understanding onboard sensors (GPS, IMU, barometer, etc.) -Calibration and troubleshooting of sensors -Telemetry setup for real-time data monitoring -Introduction to telemetry protocols (e.g., MAVLink, Mavros)		Finish class assignments and reflection	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Agri-business sales and local resource utilization planning 2 Sensors and Telemetry 2 -Understanding onboard sensors (GPS, IMU, barometer, etc.) -Calibration and troubleshooting of sensors -Telemetry setup for real-time data monitoring -Introduction to telemetry protocols (e.g., MAVLink, Mavros)	Lecture and group work	Prepare as instructed	15
12 /			Finish class assignments and reflection	20
13 /	Agri-business sales and local resource utilization planning 3 Testing the Rover Chassis 1 - Review of rover chassis design principles - Assessment of chassis components (motors, wheels, frame, etc.) - Real world Testing and troubleshooting rover mechanics	Lecture and group work	Prepare as instructed	15
14 /			Finish class assignments and reflection	20
15 /	Agri-business sales and local resource utilization planning 4 Testing the Rover Chassis 2 - Review of rover chassis design principles - Assessment of chassis components (motors, wheels, frame, etc.) - Real world Testing and troubleshooting rover mechanics	Lecture and group work	Prepare as instructed	15
16 /			Finish class assignments and reflection	20
17 /	Agri-business sales and local resource utilization planning 5 Integrating Pixhawk with Rover Chassis 1 - Review and manual creation for Understanding rover control systems - Pixhawk integration with rover hardware - Configuring accessories and peripherals - Testing accessory movement and control via Pixhawk	Lecture and group work	Prepare as instructed	15
18 /			Finish class assignments and reflection	20
19 /	Agri-business sales and local resource utilization planning 6 Integrating Pixhawk with Rover Chassis 2 - Review and manual creation for Understanding rover control systems - Pixhawk integration with rover hardware - Configuring accessories and peripherals - Testing accessory movement and control via Pixhawk	Lecture and group work	Prepare as instructed	15
20 /			Finish class assignments and reflection	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Agri-business sales and local resource utilization planning 7 Advanced Pixhawk Features1 - Introduction to scripting with PX4 - Implementing custom missions and behaviors - Autonomous navigation techniques - Advanced telemetry and logging	Lecture and group work	Prepare as instructed	15
22 /			Finish class assignments and reflection	20
23 /	Agri-business sales and local resource utilization planning 8 Advanced Pixhawk Features2 - Introduction to scripting with PX4 - Implementing custom missions and behaviors - Autonomous navigation techniques - Advanced telemetry and logging	Lecture and group work	Prepare as instructed	15
24 /			Finish class assignments and reflection	20
25 /	Agri-business sales and local resource utilization environment Check 1 Project review and presentation prep1 - Integration review of Pixhawk with custom rover designs testing, iteration, and refinement of projects	Lecture and group work	Prepare as instructed	15
26 /			Finish class assignments and reflection	20
27 /	Agri-business sales and local resource utilization environment Check 2 Project review and presentation prep2 - Integration review of Pixhawk with custom rover designs testing, iteration, and refinement of projects	Lecture and group work	Prepare for the presentation	15
28 /			Finish class assignments and reflection	20
29 /	Final Presentation Planning for the next semester Self-Reflection	Group work Self-reflection	Prepare for the presentation	60
30 /			Finish class assignments and reflection	

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design IIB	2	710400	Second	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	MATSUSHITA, Omihito/OGAWA, Hayato/ KUSHIMA, Yoshihiro / KODAKA, Arihiro	Hakusanroku C: 101.201		Mon – Friday: 4:30 – 5:30 pm

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Problem-solving	The students will learn the approaches to implement the locally appropriate solutions, evaluate the effectiveness of solutions, their iteration, and sustainable implementation of their projects. The students will also cultivate a sense of ethics as a part of a local community and autonomy by reflecting on own involvement with the locals and on own actions to take.
2	Locally appropriate solutions	
3	Societal, natural, industrial environment	
4	Project planning	
5	Communication skills	

Course Description and Expectations for Students (10.5pt)

The students will continue their regional problem-solving projects and technology development from Engineering Design IIA. Based on the group's project scopes, each group will work on their plans for business promotion and implementation and technology development using AI, IoT, and other appropriate technologies. Those outcome evaluation will be also required at the end of the semester.

Advice on taking this class
- Act with appropriate manners and behaviors as important aspects of implementation and evaluation in local areas.
- All the assignments must be submitted to pass the class. There will be penalty points if you are late to submit your assignments.
- Understand that this project is not a sequential process, rather it is a process of going back and forth by trials and errors.
- Participate in class work autonomously. Practice what they have planned to do in design research, ideation, prototyping, and evaluation stages.
- Please keep group work progress report to review later.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

EDIA & IB: Team, task, and time management skills.
Understanding of design and user research methodology and mindsets.
EDIIA: Understanding local issues
ECIIA: Understanding the ethics of SDGs and local issues

No.	Program Objectives	Target Abilities for Students (9pt)
①	d, e, g	Students will be able to co-create prototypes to better solve problems with stakeholders when necessary.
②	f	Students will be able to deliver the user experience stories using their solutions.
③	a, b, g	Students will be able to critically evaluate their solutions for better improvement.
④	g, h	Students will be able to create a possible roadmap to sustain their project.
⑤	c, d	Students will be able to implement a problem-solving project using proper management methods.
⑥	i	Students will be able to show their attitudes to reflect on their own work objectively.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	20	30	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	5	5	10	4	0	24
	Ability to think, reason and create	0	0	5	5	10	4	0	24
	Collaboration and leadership	0	0	5	5	5	4	0	19
	Announcement / Expression / Communication	0	0	5	5	5	4	0	19
	Attitude and motivation for learning	0	0	10	0	0	4	0	14

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Report will include individual work report and personal reflection on own learning experience about project progress and outcomes. The format of the report will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	Students will give oral progress and final reports of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles. Teachers will grade on presentation content and presentation etiquette. Rubric will be provided as a group.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Works	①	✓	The format of works can be physical prototypes of solutions, concept diagrams, sketches, and other styles of visual aids and writing forms. The format will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		Portfolios will include personal reflection on own leadership practice and learning experience through the project. The format of the portfolio will be announced by the instructors.
	②		
	③		
	④		
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
- Student can co-create effective locally appropriate solutions with stakeholders. - Student can evaluate their solutions effectively and critically to propose better iteration and sustainability plans. - Students can effectively work together with the team for a project.	- Student can co-create locally appropriate solutions with stakeholders. - Student can evaluate their solutions to propose better iteration. - Students can work together with the team for a project.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Class Guidance - Project reflection and review the goals of the projects System Operation Check Evaluation 1 Recording measurements and analysis	Lecture and group work	Prepare as instructed	
2 /	Agri-Business Market Research Planning 1	Lecture and group work	Finish class assignments and reflection	20
3 /	System Operation Check Evaluation 2 Recording measurements and analysis Agri-Business Market Research Planning 2	Lecture and group work	Prepare as instructed	15
4 /		Lecture and group work	Finish class assignments and reflection	20
5 /	System Operation Check Evaluation 3 Recording measurements and analysis Agri-Business Sales Development 1	Lecture and group work	Prepare as instructed	15
6 /		Lecture and group work	Finish class assignments and reflection	20
7 /	System Operation Check Evaluation 4 Recording measurements and analysis Agri-Business Sales Development 2	Lecture and group work	Prepare as instructed	15
8 /		Lecture and group work	Finish class assignments and reflection	20
9 /	System Operation Check Evaluation 5 Recording measurements and analysis Agri-Business Sales Development 3	Project progress presentation	Prepare for the progress presentation	60
10 /		Lecture and group work	Finish class assignments and reflection	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	System Operation Check Evaluation 6 Recording measurements and analysis Agri-Business Sales Development 4	Lecture and group work	Prepare as instructed	15
12 /		Lecture and group work	Finish class assignments and reflection	20
13 /	System Sustainability and Further Consideration 1 Recording measurements and analysis Agri-Business Sales Development 4	Lecture and group work	Prepare as instructed	15
14 /		Lecture and group work	Finish class assignments and reflection	20
15 /	System Sustainability and Further Consideration 2 Recording measurements and analysis Agri-Business Sales Development 5	Lecture and group work	Prepare as instructed	15
16 /		Lecture and group work	Finish class assignments and reflection	20
17 /	System sustainability and expansion 1 - Improve user interface and maintenance. - Hardware software upgradability analysis	Lecture and group work	Prepare as instructed	15
18 /	Agri-Business and local resource utilization outcome summary	Lecture and group work	Finish class assignments and reflection	20
19 /	System sustainability and expansion 2 - Improve user interface and maintenance. - Hardware software upgradability analysis	Lecture and group work	Prepare for the progress presentation	60
20 /	Agri-business prediction and local resource utilization outcome evaluation 1	Lecture and group work	Finish class assignments and reflection	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	System sustainability and expansion 3 - Improve user interface and maintenance. - Hardware software upgradability analysis Agri-business prediction and local resource utilization outcome evaluation 2	Lecture and group work	Prepare as instructed	15
22 /		Lecture and group work	Finish class assignments and reflection	20
23 /	Progress Report - Make the implementation and evaluation progress reports and plans. - Expand view of solution effect and causes	Project progress report	Prepare as instructed	15
24 /	Agri-business prediction and local resource utilization outcome evaluation 3	Lecture and group work	Finish class assignments and reflection	20
25 /	Preparation for the final presentation	Lecture and group work	Prepare as instructed	15
26 /		Lecture and group work	Finish class assignments and reflection	20
27 /	Preparation for the final presentation	Lecture and group work	Prepare as instructed	20
28 /		Lecture and group work	Finish class assignments and reflection	60
29 /	Final Presentation Self-reflection	Presentation	Prepare as instructed	20
30 /		Self-reflection	Finish reflection	20

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept.S Specialized Required	Computer Skills IIA	1	711100	First	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	OGAWA, Hayato / HAN, Justin	HC 101.201		16:30 to 17:30 (Week day)

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Machine Learning	All Students must have a fundamental understanding of programming and machine learning architecture going into the 2nd year projects. The students will need experience in programming code to do Machine learning and use the provided modules to understand how the program is used to collect data, create training files and how AI responds to input data.
2	artificial intelligence	
3	Robotics	
4	IoT	
5	Python	

Course Description and Expectations for Students (10.5pt)

This class will cover basic robotic concepts using a Jetbot chassis and jetbot.org programming examples. Concepts such as programmatic motor control, Wi-Fi connectivity, custom artificial intelligence, rule-based machine learning, neural network convolution applications, neural network data collection and training will be introduced to students. Python programming is used in this class to use with Jetson Nano. The python code is broken down into section illustrating each section of coding and can be compiled individually for easier understanding of the python code and ease of trouble shooting, with the aid of Jupyter notebook coding environment. Arduino is introduced to students for understanding serial and digital information and circuitry.

Advice on taking this course:

・Have laptops or notebooks ready before class starts
・Check E-syllabus and box app often and download all files needed for today's lesson
・Submit assignments on time.
・Enter a portfolio for self-records and review.
・Feel free to ask questions during office hour.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Courses: Engineering Design Ⅰ A&B, Engineering Context I A&B

No.	Program Objectives	Target Abilities for Students (9pt)
①	ahi	Students will be able to navigate and code python in Jupyter lab
②	ahi	Students will be able to implement Jetson nano for Machine learning exercises
③	ahi	Students will be able to implement Arduino with serial and digital signal circuits
④	ahi	Students will be able to control Arduino using personal mobile devices
⑤	ahi	Students will be able to receive Arduino data to own personal mobile devices
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	0	70	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	10	0	20	0	0	30
	Ability to think, reason and create	0	0	10	0	20	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	20	0	0	25
	Attitude and motivation for learning	0	0	5	0	10	0	0	15

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	x	Evaluate performance of report regarding Jupyter notebook reading/lecture comprehension and retention of experimental setup.
	②	x	
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		Evaluate each student's work in the programming of the robot and experimental setup.
	②		
	③	x	
	④	x	
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students understand the implementation of the experimental setup of image recognition and alert. With a general understanding of IoT and how AI is controlled and used. Program a AI system that can be custom to user and also can learn on its own to navigate through space. Students gain interest and motivation to design and conduct a project in ED2A/B.	Students understand the implementation of the experimental setup of image recognition and ability to control a robot chassis. With a general understanding of IoT and what AI is and how we can use it in our daily lives. Students gain interest and motivation to design and conduct a project in ED2A/B.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Syllabus guidance AI introduction Python introduction - Programming language Jupyter interface	- Intro into AI computing - Intro into python Jetsbot chassis with Jetson setup	Store and note Jetbot number you use Connect Jetbot to charger	30
2 /	Jetson and Python introduction - Hardware introduction - Software introduction Connection information	- Jetsbot chassis with Jetson setup cont	Make sure Jetbot is charged and ready to go Look for any loose parts and tighten Connect Jetbot to charger	30
3 /	Basic Motion 1 operation and understanding python code	Jupyter Lab interface use and wireless connection setup	Make sure Jetbot is charged and ready to go Look for any loose parts and tighten	30
4 /	Basic Motion 2 operation controlling the Jetbot wirelessly	- wireless network and computer setup	Jupyter Familiarization Answer questions on today's topics	30
5 /	Image recognition and using Machine learning data base Collision Avoidance operation 1	Understanding how to use Machine learning data	Answer questions on today's topics	30
6 /	Using images and convolution method to create model file Collision Avoidance operation 2 training for better avoidance in our world	Making own data for machine learning	Answer questions on today's topics Cont training	30
7 /	Collision Avoidance operation 3	Using student trained machine learning data	Answer questions on today's topics	30
8 /	Road Following operation 1 - Machine learning Course introduction and rules	New objective for machine learning	Answer questions on today's topics Cont training	30
9 /	Road Following operation 2 Road following Machine learning and collision avoidance model file creation	Extra rules and data entry for machine learning	Answer questions on today's topics Cont training	30
10 /	Road Following Operation wrap up - Course attack	Testing the model file created by student on road course	Answer questions on today's topics	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Object following 1 Image recognition and tacking Machine learning	Create model file to track one specific object	Answer questions on today's topics Cont training	30
12 /	Object Following 2 Test Model file	Testing the model file created by student to follow students or teacher	Answer questions on today's topics	30
13 /	IoT with Arduino - IOT Introduction presentation Learn Arduino 1	- Introduction to IOT and Arduino. - Software installation and preparation. Build a simple electronic circuit.	Arduino familiarization assignment	30
14 /	IoT with Arduino 2 - ESP8266 WIFI module introduction. Iot Project 1 (LED blinking)	- Learn how to use ESP8266 WIFI module. Plan and execute Project 1.	Project 1 execution and worksheet.	30
15 /	IoT with Arduino 3 - Project 2 (Smart Home)	Plan and execute Project 2	Project 2 execution and worksheet.	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Computer Skills IIB	1	711200	Second	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	EVANS, Davis	Hakusanroku C: 101.201		Day of Class: 16:30 – 17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Programming	Computer programming and computational thinking have been identified as essential skills in the 21st century. In this course, students will examine fundamental concepts of computer programming. They will also practice applying programming knowledge to other areas of STEM before choosing an area of interest to study in more depth on their own.
2	Self-Directed Learning	
3		
4		
5		

Course Description and Expectations for Students (10.5pt)

Computer programming has become essential in almost every field. Programs are used everywhere from performing routine tasks to solving complex problems. This course will introduce students to computer programming. Students will be able to apply their programming knowledge through creating interactive projects. After having been exposed to different types of computer applications and tools across their two years of Computer Skills courses, students will gain more in-depth experience in an application that interests them.

- Focus on class. Close unrelated programs on your laptop and listen when the teacher speaks.
- Check E-Syllabus for reading & assignments days before they are due.
- Submit each assignment on time, or talk to the teacher if you have trouble.
- Do not be afraid to ask questions.
- Do not worry if programming is difficult for you. Everybody struggles at the beginning.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: *Python Crash Course, 3rd Edition*, No Starch Press, ISBN 978-1-7185-0270-3
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students must be able to use a PC to manage files and software. In addition to this knowledge, students must also be able to discover and use various resources for learning some new Information Technology (IT) topic.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b	Recognize the importance of computational thinking in the modern world
②	h	Identify basic concepts of computer programming
③	e, i	Reflect on one's own interests to develop an idea for a self-directed project
④	a, h	Apply computer programming skills to other STEM fields
⑤		
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	20	50	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	10	0	0	30
	Ability to think, reason and create	0	0	10	10	20	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	10	10	0	0	20
	Attitude and motivation for learning	0	0	0	0	10	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		Reports are assignments from the teacher that are written either by hand or digitally as part of in-class activities. They represent the student's learning of material taught during the guided exercises of each class. In general, if a student submits one of these assignments late, **their score will lose 20% of the maximum possible points** on the assignment. **Caution: work found to be copied from another student or the web without proper attribution will result in the offending student(s) receiving a 0 for that assignment**
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①		There is a presentation at the end of the STEM programming project. Giving students an opportunity share their final work.
	②		
	③		
	④		
	⑤	✓	
	⑥		
Works	①	✓	Works are digitally created files that are uploaded at the time of submission. They show practical skills in the material that has been covered during class and represent the student's cumulative ability to apply what they learned. This includes all files and material related to the final STEM programming project. **Caution: work found to be copied from another student or the web without proper attribution will result in the offending student(s) receiving a 0 for that assignment**
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
① Recognize the value of having skills in programming ② Explain functions, classes, and lists ③ Design a programming solution to a STEM problem ④ Create a study plan for developing skills of interest	① Identify areas where programming is used ② Identify variables, conditional statements, and loops ③ Frame a STEM problem in programming terms ④ Choose a topic of interest for further studying

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Orientation and Review Students will receive an introduction to the course, install the necessary software.	Lecture Discussion Exercises	Review HTML & CSS from Computer Skills IB Read Chapter 1: The Basics in textbook	20 20
2 /	Variables and Data Types Students will learn about variables and simple data types	Lecture Exercises	Preview: Textbook Chapter 2 Review: The teacher will announce assignments in class.	30
3 /	Working with Lists Students will learn about lists in Python and how to use them to store data.	Lecture Exercises	Preview: Textbook Chapters 3 Review: The teacher will announce assignments in class.	30
4 /	Lists and Loops Students will learn about using loops and combining them with lists to process data repeatedly.	Lecture Exercises	Preview: Textbook Chapters 4 Review: The teacher will announce assignments in class.	30
5 /	If Statements Students will learn about if statements and other conditionals to allow for logic conditions in their programs.	Lecture Exercises	Preview: Textbook Chapters 5 Review: The teacher will announce assignments in class.	30
6 /	Dictionaries Students will learn about Python dictionaries and how they can be used to store various pieces of data which can be quickly retrieved.	Lecture Exercises	Preview: Textbook Chapters 6 Review: The teacher will announce assignments in class.	30
7 /	User Input and While Loops Students will learn how to incorporate user input into their program, and how to run a program indefinitely using while loops.	Lecture Exercises	Preview: Textbook Chapters 7 Review: The teacher will announce assignments in class.	30
8 /	Functions Students will learn about how to make functions to do repeated tasks.	Lecture Exercises	Preview: Textbook Chapters 8 Review: The teacher will announce assignments in class.	30
9 /	Classes Students will learn about grouping functions into classes to model real world objects.	Lecture Exercises	Preview: Textbook Chapter 9 Review: The teacher will announce assignments in class.	30
10 /	Classes Continued & Code Testing Students will learn how to use classes across different files, and how to create automated tests for their code.	Guidance Self-Study	Preview: Textbook Chapter 10 Review: The teacher will announce assignments in class.	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Programming STEM Project (1) Students will choose a project topic to implement with programming and devise a plan to create a solution.	Guidance Self-Study	Work on project Review: Textbook Chapter 11-20 (as needed)	30
12 /	Programming STEM Project (2) Students will develop their programming project	Guidance Self-Study	Work on project Review: Textbook Chapter 11-20 (as needed)	30
13 /	Programming STEM Project (3) Students will develop their programming project	Guidance Self-Study	Work on project Review: Textbook Chapter 11-20 (as needed)	30
14 /	Programming STEM Project (4) Students will finalize their programming project and prepare to present during the next class session.	Guidance Self-Study	T Work on project Review: Textbook Chapter 11-20 (as needed)	30
15 /	Programming STEM Project Presentation Students will present and demonstrate their finished project in front of the class.	Guidance Presentations	Submit all project files as directed by the teacher.	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of AI	1	711900	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	POKU, David / MATSUSHITA, Omihito	HC 110.201		9:00-17:00

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Artificial Intelligence.	**- Understand the basics and history of AI and its evolution.**
2	Interprets human language.	**- Learn the principles of machine learning and its types - supervised and unsupervised learning.**
3	visual information	**- Gain insights into the functionalities of neural networks and deep learning.**
4	ethical implications	**- Explore how AI interprets human language and visual information.**
5	History	**- Understand the application of AI in robotics, healthcare, and business.**
		- Discuss the ethical implications and biases in AI technology.

Course Description and Expectations for Students (10.5pt)

This comprehensive 15-lesson course offers a deep dive into the world of Artificial Intelligence (AI), designed to provide students with a thorough understanding of AI's fundamental principles, applications, and ethical considerations. Beginning with an introduction to AI, the course covers a broad spectrum of topics including machine learning, data analysis, neural networks, natural language processing, computer vision, and AI in robotics. Additionally, the course addresses crucial aspects of AI ethics and its impact on various sectors such as healthcare and business. Each lesson includes engaging activities, ranging from hands-on exercises and group projects to discussions and debates, fostering not only theoretical understanding but also practical skills and critical thinking.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Evaluation Method Criteria and Ratio		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	15	15	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	5	5	0	10	0	25
	Ability to think, reason and create	0	5	5	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	5	5	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be a quiz in week 4 / 8 / 14
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Hands-On Engagement: Complete practical exercises and group projects to apply theoretical concepts in real-world scenarios. **Research and Exploration:** Undertake research activities, data collection, and case studies to deepen understanding of AI applications. **Creative Thinking:** Demonstrate creativity in projects, especially in envisioning the future of AI. **Ethical Consideration:** Participate in ethical debates and discussions, developing a responsible perspective towards AI development and usage.	Fundamental proficiency in critical thinking, problem-solving, and innovative thinking. Strong communication skills and the ability to work collaboratively with empathy and flexibility. Advanced literacy in information, media, and technology, along with effective personal and career development strategies. A deep understanding of cultural diversity, global issues, and a commitment to ethical leadership and social responsibility.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1	Lesson 1: Introduction to AI ● Topics: What is AI? History and evolution of AI. ● Activity: Discussion on AI in everyday life.	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
2	Lesson 2: Understanding Intelligence in Machines ● Topics: How do machines learn? Differences between human and machine intelligence. ● Activity: Group brainstorming on examples of intelligent machines.	Activity / Explanation / Report		60
3	Lesson 3: Basics of Machine Learning ● Topics: Introduction to machine learning, types of machine learning. ● Activity: Simple hands-on exercise with a machine learning tool.	Activity / Explanation / Report		60
4	Lesson 4: Data and AI ● Topics: Importance of data in AI, data collection and use. ● Activity: Data scavenger hunt or data collection project.	Activity / Explanation / Report	Quiz Report from lesson 1-3 Project review	60
5	Lesson 5: Supervised Learning ● Topics: Concept of supervised learning, basic algorithms. ● Activity: Simple classification project (e.g., using online tools).	Activity / Explanation / Report		60
6	Lesson 6: Unsupervised Learning ● Topics: Understanding unsupervised learning, clustering. ● Activity: Experiment with clustering using a simple dataset.	Activity / Explanation / Report		60
7	Lesson 7: Neural Networks and Deep Learning ● Topics: Introduction to neural networks, basics of deep learning. ● Activity: Build a basic neural network model using educational software.	Activity / Explanation / Report		60
8	Lesson 8: Natural Language Processing (NLP) ● Topics: How machines understand human language. ● Activity: NLP demo (e.g., chatbot interaction, sentiment analysis).	Activity / Explanation / Report	Quiz Report from lesson 4-8 Project review	60
9	Lesson 9: Computer Vision ● Topics: How machines interpret and understand visual information. ● Activity: Image recognition exercise using an online tool.	Activity / Explanation / Report		60
10	Lesson 10: Robotics in AI ● Topics: AI in robotics, real-world applications. ● Activity: Case study or video presentation on robotics.	Activity / Explanation / Report		60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11	Lesson 11: AI Ethics and Bias ● Topics: Ethical considerations in AI, understanding bias. ● Activity: Debate or discussion on ethical dilemmas in AI.	Activity / Explanation / Report		60
12	Lesson 12: AI in Healthcare ● Topics: Role of AI in medicine and healthcare. ● Activity: Research and presentation on AI healthcare applications.	Activity / Explanation / Report		60
13	Lesson 13: AI in Business and Everyday Life ● Topics: How AI is transforming businesses and daily activities. ● Activity: Group project on AI impacts in various industries.	Activity / Explanation / Report		60
14	Lesson 14: The Future of AI ● Topics: Emerging trends, future predictions. ● Activity: Creative writing or drawing project on the future of AI.	Activity / Explanation / Report	Report from lesson 4-8 Hand in Project Prepare for the presentation and the report	60
15	Lesson 15: Course Review and AI Project Showcase ● Topics: Review of key concepts, student presentations. ● Activity: Students present their own AI project ideas or findings.	Presentation	Presentation	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of Computer Science	1	712000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	EVANS, Davis	Kanazawa C 31.309		Friday 16:30-17:30

Course Objectives

	Keywords	Learning Objectives
1	Computer Hardware	**The aim of this course is to teach students the basics of how computers and networked devices operate, and how to properly use such devices and networks. The curriculum provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level information and communication technology (ICT) professionals. The curriculum covers the fundamentals of PC technology, networking, and security.**
2	Computer Software	
3	Network Communication	
4	Binary Numbers	
5	Information Security	

Course Description and Expectations for Students

At the successful completion of this course, students will be able to:

1. Identify and explain the function of key components of modern computer hardware.
2. Perform basic conversion of decimal numbers to binary and hexadecimal.
3. Explain the fundamentals of computer algorithms, their theoretical operating time, and implement simple examples such as sort and search.
4. Explain the purpose of a programming language, and give examples of simple algorithms implemented in one.
5. Explain the purpose of an operating system and how one is structured.
6. Explain the fundamental structure of computer networks, as well as how data is transmitted on them, including over the internet.
7. Explain and implement the fundamentals of information security including cryptography and security protocols.

Required Materials (textbooks, reference books, reserved books)
Textbooks: D is for Digital (English Edition), Brian W. Kernighan, ASIN: B0075XZL2M
Reference books: None
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites)

No.	Program Objectives	Target Abilities for Students
①	e	Students will be able to identify the key components of a modern computer, and explain the function of each
②	e	Students will be able to install and maintain operating systems.
③	e	Students will be able to connect and configure devices.
④	e	Students will be able to write basic algorithms and scripts.
⑤	e	Students will be able to perform basic network configuration.
⑥	e	Students will be able to explain and implement the fundamentals of computer and network security

Evaluation Criteria

	Criteria and Ratio \ Evaluation Method	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	40	0	0	0	30	0	30	100
Comprehensive Strength Criteria	Ability to capture knowledge	25	0	0	0	0	0	20	45
	Ability to think, reason and create	10	0	0	0	20	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	5	0	0	0	0	0	5	10
	Attitude and motivation for learning	0	0	0	0	10	0	5	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①	✓	There will be a final cumulative exam to test student's knowledge of the material.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Exercises will be provided in class to provide practice and promote understanding of the content provided in the textbook and lecture portions.
	②		
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	Skills-based Assessment Assessments are conducted at the end of each part to measure student understanding. The specifics of the assessment will be made clear during the class.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
Understand how computer hardware and software work, the fundamentals of algorithms, and how to implement basic information security on a single computer and over a network.	Be able to explain how computer hardware works and write simple programs, as well as explain the difference between an encrypted connection and an unencrypted connection.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
1 /	Part 1: Hardware What's in a computer	Lecture	Read textbook and assignment	20
2 /	Part 1:Hardware Bits,Bytes,and Representation of Information	Lecture	Read textbook and assignment	20
3 /	Part 1:Hardware Inside the CPU Assessment	Lecture	Read textbook and assignment	20
4 /	Part 2:Software Algorithms	Lecture	Read textbook and assignment	20
5 /	Part 2:Software Programming and Programming Languages	Lecture	Read textbook and assignment	20
6 /	Part 2:Software Software System	Lecture	Read textbook and assignment Download and install VS Code	20
7 /	Part 2:Software Introduction to Programming VS Code Installation and Example Code	Lecture	Read textbook and assignment	20
8 /	Part 2:Software Introduction to Programming Implementing Loops and Conditionals Assessment	Lecture	Read textbook and assignment	20
9 /	Part 3:Communications Networking	Lecture	Read textbook and assignment	20
10 /	Part 3:Communications The Internet Structure of the Internet	Lecture	Read textbook and assignment	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
11	Part 3:Communications The Internet Protocols, Bandwidth, & Compression	Lecture	Read textbook and assignment	20
12 /	Part 3:Communications The World Wide Web HTML, Webpages, & Their Contents	Lecture	Read textbook and assignment	20
13 /	Part 3:Communications The World Wide Web Web security, Viruses, & Cryptography	Lecture	Read textbook and assignment	20
14 /	Part 3:Communications Data, Information, and Privacy Assessment	Lecture	Read textbook and assignment	20
15 /	Cumulative Review	Self-Study	Prepare for Exam	20

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of Data Science	1	712100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	ITO, Meguru	Hakusanorku C 101.201		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Data aggregation	Utilization of data is indispensable for realizing the smart society Society 5.0, and it will be indispensable in the future to acquire a background in data science. In this lecture, you will learn the two most basic methods of data analysis, which occupy a very large part of data science, 1) various methods of data aggregation, 2) normal distribution, 3) linear regression analysis through lectures and exercises.
2	Normal distribution	
3	Correlation	
4	Linear regression	
5	MS Excel	

Course Description and Expectations for Students (10.5pt)

In this course, you will learn the introductory contents of data analysis, which is important aspect of data science, through lectures and exercises. In addition to class lectures, the course also includes hands-on analysis exercises.
The explanations of the mathematical background are kept to a minimum in order to understand the methods and practical exercises are carried out to analyze specific operation and tools.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books: 完全独習統計学入門（ダイヤモンド社）ISBN 978-4478820094
Excel による優しい統計解析（オーム社）ISBN 978-4-274-22612-0
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic operation and data literacy of Microsoft Excel

No.	Program Objectives	Target Abilities for Students (9pt)
①	h,i	Students will be able to understand cross aggregation.
②	h,i	Students will be able to understand normal distribution.
③	h,i	Students will be able to understand correlaiton.
④	h,i	Students will be able to understand linear regression analysis.
⑤	i	Students will be able to review what you achieved using Portfolio system.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	0	80	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	40	0	0	40
	Ability to think, reason and create	0	0	0	0	40	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	10	0	10
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	∠	To check the learned skills in class, students have to submit assignment for each topic. The work will comprise 80% of the overall evaluation. Copying the report of others is not permitted. **Students must submit all assignments. If they do not submit even one of them, the grading of works will be 0.** Late submission of assignments reduces its grading.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Portfolios	①	∠	Portfolio evaluation is based on documentation of evidence of e-syllabus entry that reflects students understanding of their gained learning skills.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Be able to give specific explanations about the use and utilization of data and its significance from the perspective of one's specialty. It is possible to explain the characteristics of the data set after performing appropriate aggregation and drawing a graph for the given numerical data and category data. Furthermore, regarding the given multivariate data. phase The number of relationships can be obtained, regression analysis can be performed, an optimal regression model can be created, and it can be used for prediction.	Explain the use and utilization of data and its significance. Appropriate aggregation can be performed on given numerical data and category data, and graphs can be drawn. Furthermore, regarding the given multivariate data. The correlation coefficient can be obtained, regression analysis can be performed, and it can be used for prediction.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Review of fundamental statistics Review of fundamental operation of Excel	Lecture and exercise	Finishing assignments of this class	30
2 /	Aggregation	Lecture and exercise	Finishing assignments of this class	30
3 /	Exercise of aggregation	Exercise	Finishing assignments of this class	30
4 /	Normal distribution	Lecture and exercise	Finishing assignments of this class	30
5 /	Population vs Sample	Lecture and exercise	Finishing assignments of this class	30
6 /	t-distribution	Lecture and exercise	Finishing assignments of this class	30
7 /	Exercise of normal distribution	Exercise	Finishing assignments of this class	30
8 /	Correlation	Lecture and exercise	Finishing assignments of this class	30
9 /	Correlation	Lecture and exercise	Finishing assignments of this class	30
10 /	Simple linear regression	Lecture and exercise	Finishing assignments of this class	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Multiple linear regression	Lecture and exercise	Finishing assignments of this class	30
12 /	Multiple linear regression	Lecture and exercise	Finishing assignments of this class	30
13 /	Exercise of regression analysis	Exercise	Finishing assignments of this class	30
14 /	Open data project	Project	Finishing assignments of this class	30
15 /	Open data project and Summary	Project	Finishing assignments of this class	30

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Electric Foundations I	1	712400	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	HUSSIEN, Alaa	Hakusanroku C 101. 201		(Mon.-Tue. Thru.) 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	DC circuits analysis.	Students will be able to analyze DC circuits using Ohm and Kirchhoff's laws, know the bridge circuits and their applications, learn about electromagnetic induction and the principles of DC motors and generators, study about condensers and inductors and their applications, understand the fundamentals of semiconductors devices such as diodes, transistors and the logic gates, learn about experiments for building simple electric circuits.
2	Ohm and Kirchhoff's laws	
3	Wheatstone bridge- Electromagnetism	
4	Condensers-Inductors-AC electricity	
5	Diodes-Transistors-Logic gates	

Course Description and Expectations for Students (10.5pt)

In this course, students will understand the meaning of some basic electrical terms and then learn about some basic laws and formulas such as Ohm and Kirchhoff's laws. They also learn how to use such formulas to gain the skill of analyzing different kinds of DC circuits including bridge circuits and their applications. This will be followed by some hands-on experiments to prove and confirm the theoretical analysis and calculations. One of the topics which students will know about is the electromagnetic induction and the principle operation of both electrical generators and motors. Condensers and inductors are useful electrical components and are used in most of the electrical appliances, so students will study their structure, properties, characteristics and their applications. Most of the students are a bit familiar of DC electricity but don't know about AC electricity so students will study an introduction to AC electricity. In the last part of this course, student learn about semiconductor devices such as diodes and transistors and then about logic gates. By the end of many classes, students will watch demonstrations of doing some experiments at the class to measure electrical quantities and prove some formulas.
It is advised that students pay full attention during the lecture time to understand the topics ask questions during the class, and submit the assignments on time.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:"Introduction to Electric Circuits" 9th edition by Richard C. Dorf, James A. Svoboda, ISBN:9781118321829
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students should aware of the fundamental math calculations and know how to solve simultaneous equations. They should feel free to ask questions in and outside the class to understand the topics and solve the worksheet problems. In addition to that, students should realize that making mistakes is necessary for learning.

No.	Program Objectives	Target Abilities for Students (9pt)
①	g,h,i	Define and explain the electrical terms and basic principles of DC circuits connections including series parallel connections.
②	d,h,i	Understand Ohm and Kirchhoff's laws and use their formulas to analyze different types of electric circuits.
③	b,g,i	Learn about the electromagnetic induction and the principle operation of electric generators and motors.
④	a,b,h	Discover more electrical components such as condensers and inductors and their applications in daily life.
⑤	d,h,i	Know about semiconductors devices such as diodes and transistors and logic gates.
⑥	a,d,h,	Learn how to make electric circuits using different components to do some experiments for measuring some quantities.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	50	20	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	20	5	0	0	0	0	35
	Ability to think, reason and create	10	20	5	0	0	0	0	35
	Collaboration and leadership	0	0	5	0	0	0	0	5
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	10	10	5	0	0	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover material for latter half of this semester. It is worth 30% of your final grade. It is important to study all your notes, worksheets and quizzes before the test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be one quiz each class which will cover materials from the previous lesson. The average of all your quizzes will be your final score which is worth 20% of your final grade. And there will be one mid-term test which will cover material for the former half of this semester. It is worth 30% of your grade, so 50% of your final grade will be obtained through these quizzes and mid-term test.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Every class the students are given a worksheet contains questions and problems to be solved at the class and complete it by the end learning session of the same day. The grading criteria will be based on whether or not you checked your answer and completed it. The homework equates 20% of the total score.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to do the following: 1-Use Ohm and Kirchhoff's laws to analyze DC electric circuits including bridge circuits. 2-understand the electromagnetic induction and how it is used for the operation of generators and motors. 3-Discover the structure and properties condensers and inductors and their applications in daily life 4-Understand the AC electricity compared to DC electricity. 5-learn about the semiconductor devices such as diodes, transistors and logic gates.	Students are able to do the following: 1-Use Ohm and Kirchhoff's law to solve simple circuits. 2-Understand the electromagnetic induction and the difference between the generators and motors. 3-Know about the functions of condensers and inductors. 4-Define the AC electricity compared to DC electricity. 5-Learn about the use of diodes, transistors, and logic gates.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course guidance Electrical quantities and Ohm's law	Lecture Worksheet#1 Activity#1	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#2	30
2 /	DC circuit analysis I	Quiz#1 Worksheet#2 Activity#2	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#3	30
3 /	DC circuit analysis II	Quiz#2 Worksheet#3 Activity#3	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#4	30
4 /	Kirchhoff's laws	Quiz#3 Worksheet#4 Activity#4	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#5	30
5 /	Bridge circuits and applications	Quiz#4 Worksheet#5 Activity#5	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#6	30
6 /	Electromagnetic induction and applications	Quiz#5 Worksheet#6 Activity#6	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#7	30
7 /	Condensers and applications	Quiz#6 Worksheet#7 Activity#7	Review: Finish worksheet/HW. Preparation: Review all worksheets and quizzes	90
8 /	Mid-term exam	Quick review Have the exam	Preparation: read the notes of lecture#9	15
9 /	Inductors and applications	Return the mid-term exam results Worksheet#9	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#10	30
10 /	Introduction to AC electricity	Quiz#7 Worksheet#10 Activity#8	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#11	30

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Semiconductor diodes I	Quiz#8 Worksheet#11	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#12	30
12 /	Semiconductor diodes II	Quiz#9 Worksheet#12 Activity#8	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#13	30
13 /	Transistors	Quiz#10 Worksheet#13	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#14	30
14 /	Logic gates I	Quiz#11 Worksheet#14	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: read the notes of lecture#15	30
15 /	Logic gates II	Quiz#12 Worksheet#15	Review: Finish worksheet/HW. Prepare for the quiz. Preparation: Review all lecture notes of last 7 classes	60
16 /	Final Exam	Exam on the contents of class #8 to class #15	Study all materials of the second half of the semester	120
17 /	Final Exam Return. Self-check.	Return the exams results.		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of Robotics	1	712500	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	HAYASHI, Michihiro / HAN, Justin	KC 31-126-1		Class day: 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Mechanism	Students will: (1) learn the basics of robotics. (2) learn how to design mechanical parts. (3) learn how to control a 2-wheel mobile robotic to accomplish line tracing.
2	Sensor	
3	Actuator	
4	Control	
5	Programming	

Course Description and Expectations for Students (10.5pt)

This course deals with the fundamentals of robotics. It aims to teach the operations of sensors, actuators, and computer programs through exercises in controlling line tracing robots.

(1) Outline of robotics and mechatronics
(2) Sensors (IR sensor, Ultrasonic sensor, Image sensor)
(3) Actuators (DC motor, Stepper motor, Servo motor)
(4) Computer program (Jupiter notebook, Python)

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

	Program Objectives	Target Abilities for Students (9pt)
①	d,g,h	Be able to design parts according to required specification.
②	g,h	Be able to make 3D models by using 3D CAD software.
③	g,h	Be able to manufacture parts by using a 3D printer or laser cutting machine.
④	g,h	Be able to understand algorithms for line tracing robots.
⑤	d,h	Be able to make computer programs by using the Python programming language.
⑥	d,h,i	Be able to check the operation of line tracing robots.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	20	50	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	20	0	0	40
	Ability to think, reason and create	0	0	10	10	20	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	10	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	10	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will be evaluated based on their reports such as required specification sheets, mechanical drawings, procedure manuals for manufacturing parts and algorithms for their line tracing robots.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		Students will be evaluated on their final presentation which deals with their line tracing robots.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①	✓	Students will be evaluated by their works such as 3D models made in CAD, manufactured parts, and computer programs.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Able to design parts and make 3D models based on required specifications. (2) Able to fully understand the functions and operations of various sensors. (3) Able to fully understand the functions of various actuators. (4) Able to make a computer program for line tracing robots correctly. (5) Able to check and explain the operation of line tracing robots.	(1) Able to make 3D models based on actual parts. (2) Able to understand the functions and operations of various sensors. (3) Able to understand the basic functions of various actuators. (4) Able to make a computer program for line tracing robots by referring to various sample programs. (5) Able to check the operation of line tracing robots.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Basics of mechatronics and robotics Composition of robot: Mechanism, frame, actuators, electronic circuit, computer program	Lecture and Q&A Self-check	Understand the course objectives Confirm the course schedule	20
2 /	Representation of mechanical parts 3D model and 2D drawings Conversion between 3D model and 2D drawings Projection methods	Lecture and Q&A Self-check	CAD practice	20
3 /	Making 3D models	Lecture and Q&A Self-check	CAD practice	20
4 /	Design mechanical parts (part 1) Requirement of parts Consideration of dimensions of parts DFMA	Lecture and Q&A Self-check	Specification sheets	20
5 /	Design mechanical parts (part 2) 3D Parts modeling with CAD	Lecture and Q&A Self-check	Parts modeling	20
6 /	Manufacturing and evaluation Manufacturing parts with a 3D printer and laser cutter Measurement, inspection, and evaluation of parts	Lecture and Q&A Self-check	Check parts	20
7 /	Basics of robot programming Roles of programs Reading the status of sensors Driving the actuators Installation of programming environment	Lecture and Q&A Self-check	Check programming environment	20
8 /	Programming (part 1) Introduction of computer languages Role of algorithms	Lecture and Q&A Self-check	Check programming environment	20
9 /	Programming (part 2) Loops Conditional branches	Lecture and Q&A Self-check	Programming practice	20
10 /	Programming (part 3) Transferring the program to robot Checking the program	Lecture and Q&A Self-check	Programming practice	20

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Project (part 1)	Lecture and Q&A Self-check	Proceed with project	20
12 /	Project (part 2)	Lecture and Q&A Self-check	Proceed with project	20
13 /	Project (part 3)	Lecture and practice Self-check	Proceed with project	20
14 /	Project (part 4)	Lecture and practice Self-check	Prepare for final presentation	20
15 /	Final presentation Checking robot operation	Lecture and practice Self-check	Check robot operation	20

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Fundamentals of Business Management	1	712700	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
2	* MEBUSAYA, Tossa OGAWA, Hayato	Hakusanroku C 101.201		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Entrepreneurship	In this course, students will try to find a framework when we think about entrepreneurship and explain the innovation and entrepreneurship as a focused and systematic discipline. The goal of this course is to capture the ideas that existing businesses and new ventures need to know and do to succeed in today's economy.
2	Innovation	
3	Value Creation	
4	Startups	
5	Business Strategy	

Course Description and Expectations for Students (10.5pt)

Students who will become global innovators in the future must acquire the ability to identify the essence of problems and propose and implement appropriate solutions. In order to do so, they need to understand and utilize their own characteristics and strength, acquire logical thinking and argumentation skills, and be able to express their own opinions on how to solve problems.

Relationship between this course and business experiences

Based on the teacher's experience in Startups and management in various industries, the teacher will provide discussion materials on the key factors for entrepreneurial success.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: None
Reference books: None
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have an interest in business development,
and have a certain basic knowledge of marketing and business system.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,i,g	Be able to explain the role of an entrepreneur
②	a,i,g	Know a lot of success stories and why
③	c,g	Understand the challenges and risks involved in starting a new business
④	c,g	Learn about the Startups and various type of entrepreneurship
⑤		
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	60	20	10	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	0	0	0	0
	Ability to think, reason and create	0	0	60	0	0	0	0	60
	Collaboration and leadership	0	0	0	0	10	0	0	10
	Announcement / Expression / Communication	0	0	0	20	0	0	0	20
	Attitude and motivation for learning	0	0	0	0	0	0	10	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✔	Write reports of your impressions on the lectures by real entrepreneurs from various industries.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Presentations	①	✔	Share the results of your own research and evaluation on startup stories.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Works	①	✔	Group discussion on external lectures.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✔	Students are evaluated based on their learning attitudes and reporting status.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Be able to play the role of an entrepreneur. Know a lot of success stories and the reason for their success. Understand the challenges and risks of starting a new business and know how to deal with them.	Be able to explain the role of an entrepreneur. Know a lot of success stories. Understand the challenges and risks involved in starting a new business.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Class Guidance Introduction to Innovation Nature of change and impact	Lecture Q&A Discussion	Review the handouts. Research & Report	50
2 /	Innovation, Invention, and Entrepreneur Innovation type and cycle. Success stories	Lecture Q&A Discussion	Review the handouts. Research & Report	50
3 /	Business vs Lean canvas Problem and validation	Lecture Q&A Discussion	Review the handouts. Research & Report	50
4 /	Data analytic – methods and tools Stakeholders, Users, Customers Stakeholders – Problem validation	Lecture Q&A Discussion	Review the handouts. Research & Report	50
5 /	Value proposition, canvas Problem-solution fit	Lecture Q&A Discussion	Review the handouts. Research & Report	50
6 /	Solution design – Problem solving model. Problem-solution fit, Customer-solution fit User/Customer centric design	Lecture Q&A Discussion	Review the handouts. Research & Report	50
7 /	MVP and Prototyping UX/UI Stakeholders – solution validation	Lecture Q&A Discussion	Review the handouts. Research & Report	50
8 /	Feedback analysis - Validation Market, Competitors, Unfair-Advantages SWOT and Brand positioning	Lecture Q&A Discussion	Review the handouts. Research & Report	50
9 /	Expense and Income Revenue model Timeline	Lecture Q&A Discussion	Review the handouts. Research & Report	50
10 /	IP - Copyright, Trademark, and Patent	Lecture Q&A Discussion	Review the handouts. Research & Report	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Investor and Funding options Equity and Stage	Lecture Q&A Discussion	Review the handouts. Research & Report	50
12 /	Doing Business in AI era Finalizing project	Lecture Q&A Discussion	Review the handouts. Research & Report	50
13 /	Pitching – Pitching script and Pitch deck Finalizing project	Lecture Q&A Discussion	Review the handouts. Research & Report	50
14 /	Finalizing project Optional: Guest speakers	Lecture Q&A Discussion	Research & Report	50
15 /	Final Pitching Presentation	Presentation		

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Global Studies	2	510100	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
3	Tracie Stevenson-Wright			

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Study and life skills	The students will learn necessary study and life skills for a study-abroad program in this class: 1) essential academic policies and expectations as international students, including the effective use of the learning support system at Otago Polytechnic 2) the manners and policies for a smooth homestay experience. 3) local geography, culture, and activities on and off campus.
2	Academic and culture orientation	
3	Learning support system	
4	Homestay experience	
5	Living experience	

Course Description and Expectations for Students (10.5pt)

In this class, students will understand the policies and expectations to study and live at Otago Polytechnic in Dunedin.

Study-skills and Campus system
1) The academic policies and the learning system of Otago Polytechnic.
2) Expected manners and efforts in class
3) The use of IT devices and the Internet

Life-skills
1) Homestay policies and manners
2) Campus and City navigation system
3) Sports and cultural activities in Dunedin

All the assignments need to be submitted on time.

Required Materials (textbooks, reference books, reserved books)
Refer to Otago Polytechnic Moodle Website

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Speaking and Listening skills, Reading and Writing Skills, Bridge English

No.	Program Objectives	Target Abilities for Students (9pt)
①	b,d,i	The students are able to understand and act on the essential academic policy and manners.
②	b,d,e, i	The students are able to understand and act on the homestay policies and manners.
③	b,d,i	The students are able to navigate themselves on how to ask for a help with academic and life issues properly when needed.
④	e,i	The students are able to understand geographical features and how they affect lifestyles
⑤	b, e, f, i	The students are able to express the cultural differences between New Zealand, Japan or native country.
⑥	b, e, f, i	The students are able to discuss and reflect on family lifestyles in different ethnic environments

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	40	40	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	10	0	2	0	27
	Ability to think, reason and create	0	5	10	10	0	2	0	27
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	10	0	3	0	13
	Attitude and motivation for learning	0	0	20	10	0	3	0	33

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	In class you will participate in a quiz from a New Zealand News website (Stuff.co.nz). You will be given opportunities to lead the quiz. When you are leading the quiz it is your job to help run a class discussion about the answers, move the group towards consensus, or facilitate a vote to determine which answer to select.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	You will submit four short pieces of writing (reports). Each report should be between 300 and 400 words long. You will submit your reports electronically to your lecturer. The topic of each piece of writing will be given by the lecturer.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①	✓	You will give four short presentations in class. Each presentation should last between 5 and 7 minutes. Your presentation will be given in English and should use some sort of visual aid (for example a power point presentation or a diagram). The topic of each presentation will be given by the lecturer.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	You will compile a portfolio of things you have done and experienced while in New Zealand so far. Your portfolio should include a range of experiences both on and off campus. You will also do a piece of reflective writing that is between 200 and 300 words and highlights what you have learnt so far and how you will apply this to the rest of your time in New Zealand. You should include SMART Goals for the rest of your stay in your portfolio.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
The students complete all the assignments on time/ahead of submission dates. Having frequent interaction with instructors, other students, host families, and communities. Detailed and well thought out reflections and contribution to discussions.	The students complete and handed in on time. Having consistent communication with instructors, other students, host families, and communities Detailed reflections and contribution to discussions.

Course Schedule

* Most assignments will be allocated class time. However, if an assignment takes longer than the class time allocated, students will be expected to complete the assignment after the class and submit it before the deadline.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	EngTech Orientation (Physical Tour, H&S, Online environment including Teams, Moodle, Student expectations)	Lecture	Review as instructed	15
2 /		Lecture		15
3 /	Develop and Deliver Self Introduction Presentations	Lecture	Presentation preparation	15
4 /		Presentation	Review as instructed	15
5 /	Introductions to places and locations: Map of New Zealand, describing places and things	Lecture	Review as instructed	15
6 /		Lecture	Review as instructed	15
7 /	Introduction to NZ Homestay life: NZ Lifestyle and living	Lecture	Review as instructed	15
8 /		Lecture	Report writing	15
9 /	Prepare Japan and NZ Comparison Presentation 1	Lecture	Presentation Preparation	15
10 /	Prepare Japan and NZ Comparison Presentation 2	Research	Presentation Preparation	15
11 /	Dunedin and Otago Introduction – Trip to Toitu	Lecture	Review as instructed	15

12		Lecture	Review as instructed	15
13 /	Research and Develop Dunedin History Presentation 1	Lecture	Research	15
14 /	Research and Develop Dunedin History Presentation 2	Lecture	Research	15
15 /	Deliver Dunedin History Presentation	Presentation	Presentation Preparation	15
16 /	Education in Japan and New Zealand - different education styles	Lecture	Review as instructed	15
17 /	Planning and Goals: SMART Goal setting	Lecture	Report writing	15
18 /		Lecture	Report writing	15
19 /	Presenting a view: Facts, Views and Opinions	Lecture	Review as instructed	15
20 /	Presenting a view: Agreeing and Disagreeing	Lecture	Report writing	15
21 /	Entertainment: Japan vs New Zealand	Lecture	Review as instructed	15
22		Lecture	Review as instructed	15
23	History of Engineering: Japan & New Zealand 1	Lecture	Report writing	15

Course Schedule

* Most assignments will be allocated class time. However, if an assignment takes longer than the class time allocated, students will be expected to complete the assignment after the class and submit it before the deadline.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
24	History of Engineering: Japan & New Zealand 2	Lecture	Report writing	15
25	History of Engineering: Comparison Presentation Prep	Lecture	Presentation Preparation	15
26	History of Engineering: Comparison Presentation	Presentation	Review as instructed	15
27	Health and Nutrition: Food in New Zealand	Lecture	Review as instructed	15
28		Lecture	Review as instructed	15
29	Following Instructions to cook	Lecture	Review as instructed	15
30		Lecture	Reflection	15

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Global Life and Culture	4	510200	All year	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
3	BAIRD, Pauline UTSUNOMIYA, Takako	Hakusanroku C: 101.201		TBA

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Culture Diversity Values and beliefs Intercultural exchange Comparative perspective	Students will be able to deepen their interest in various aspects of different cultures, including lifestyle, housing, food, fashion, manners, customs, pastimes, working styles, nature, and history. Through contact with people with different cultural backgrounds, students will explore a variety of values and beliefs, experiencing the joys and challenges of intercultural exchange. Students will learn to see their own culture from a comparative perspective, improving their ability to express their own standpoint while respecting their own and different cultures.

Course Description and Expectations for Students (10.5pt)

In this course, while living in New Zealand, the following topics will be covered in nine modules:
1)Moving to a new country, 2) Culture Shock, 3) Leisure and Environment, 4) Meeting New People, 5) Discovering Japanese culture, 6) School Life, 7) Making connections (Language and Interests), 8) Personal Skills and Career Growth, 9) Moving Home

Write journals either in Japanese or English (Japanese graded by Fudano and Utsunomiya Sensei, English graded by Pauline sensei)
New Zealand:
1) Choose one of three prompts of interest provided. Listen and observe yourself others and the environment and respond to the prompt.
2) Upload the journal to Moodle.

【Advice】
This class is conducted in the "Self-Directed" study style instead of face-to-face or online lectures. Check the course syllabus for the class due dates.
(1) Positively communicate with people with diverse backgrounds during the course.
(2) Try to see things from various aspects so that you can more deeply understand the given topic.
(3) Try to improve your English Language level.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to express one's own ideas, feelings, and observations in English and / or Japanese.
Ability to write and reflect on life at home and overseas.
Ability to organize ideas into a journal.
Ability to use feedback to improve thought and expression.

No.	Program Objectives	Target Abilities for Students (9pt)
①	e	Students will be able to communicate with people in the world using English.
②	e	Students will be able to understand the ways of life in various cultures and enjoy them.
③	e	Students will be able to express their findings and ideas/thoughts through engaging the assignments.
④	f	Students will be able to explore a variety values and beliefs
⑤	f	Students will be able to listen to and observe various people to deepen their interests about different cultures.
⑥	f	Students will be able to improve their ability to express their own standpoint.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	0	0	50	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	0	20	0	40
	Ability to think, reason and create	0	0	20	0	0	20	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	10	0	20
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Reports (journals) are 50% of the overall course grade. 1) Choose <u>one</u> of three prompts from the list provided. Listen and observe your environment and yourself, then respond to the prompt. 2) Write at least 250 words (400 Japanese characters) on a chosen prompt (50 points), and a reflection 400 words (600 Japanese characters). 3) Upload the journals and reflections to Moodle by the due date. 4) Each journal entry is 50 points. (Avoid late submissions. Notify the teachers by email or Moodle Messages if your work is going to be late. 10 points will be deducted for unexcused late submissions.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Portfolios (reflections) are 50 % of the overall course grade. 1) In Each module, students will compose a reflection based on their previous journals in the module. Additionally, students will write freely on any topic, or concern. 2) Each reflection is 50 points. 3) The subtotal of the points (50 points max. each unit) for 7 units is converted to count.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students will complete assignments in English or Japanese on time and to a high standard. Students will respond appropriately to feedback and seek help when necessary to further improve.	Students will complete assignments to a reasonable standard in English or Japanese. Students will respond to most feedback and will occasionally seek help.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Log in to Moodle Read syllabus & Prepare to Write	Read Syllabus	Preparing internet connection. Preview the modules. Get started	90 10
2 /	**Module 1: Moving to a New Country** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
3 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
4 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
5 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
6 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
7 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
8 /	**Module2: Culture Shock!** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
9 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
10 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
12 /	Journal 3	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
13 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
14 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
15 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
16 /	**Module 3: Leisure and Environment** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
17 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
18 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
19 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
20 /	Journal 3	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
22 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
23 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
24 /	**Module 4: Meeting New People** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
25 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
26 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
27 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
28 /	Journal 3	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
29 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
30 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
31 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
32 /	**Module 5: Discovering Japanese Culture** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
33 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
34 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
35 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
36 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
37 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
38 /	**Module 6: School Life** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
39 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
40 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
41 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
42 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
43 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
44 /	**Module 7: Making Connections (Language and Interests)** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
45 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
46 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
47 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
48 /	Reflections	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
49 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
50 /	**Module 8: Personal Skills and Career Growth** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
51 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
52 /	Journal 2	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
53 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
54 /	Catch up	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
55 /	Catch up	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
56 /	**Module 9: Moving Home** Journal 1	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
57 /	(Same as above)	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
58 /	Catch up	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
59 /	Catch up	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10
60 /	Catch up	Prompts for self-directed learning	Complete Journal and submit it to Moodle. Check the feedback comment.	90 10

Functional English

SMS Code	EE501001	*Teacher-directed learning hours*	150
Level	4	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No			

Aim

To enable students to communicate independently and effectively with fluency and flexibility in everyday social, community, and academic English language contexts

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Use oral and written English fluently to communicate in formal and informal settings
2. Identify and outline main ideas and key supporting evidence in formal and informal communication
3. Apply the principles of intercultural communication in context

Indicative Content

- Reading moderately complex English texts and commenting on them
- Listening to moderately complex English texts and commenting on them
- Participating in conversations about culture and society
- Analysing situations from a cultural perspective
- Writing a variety of texts in English in appropriate genre about social and cultural issues

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Test	10%	1-3	Percentage	Must pass with minimum 50 % overall
Oral Discussion	20%	1-3		
Portfolio	40%	1-3		
Presentation	30%	1-3		

Engineering English Communication (Engineering Communication)

SMS Code	EE502001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No			

Aim

To enable students to communicate effectively in English in a global engineering environment

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Interpret ideas and concepts in complex English language texts in an engineering context
2. Communicate technical information in an engineering English context
3. Use English language to communicate instructions, information and decisions effectively
4. Demonstrate cultural awareness in a global engineering environment

Indicative Content

- Writing a technical report in English
- Writing engineering laboratory reports in English
- Giving a technical presentation based on a project
- Giving and receiving instructions in an engineering context
- Analysing engineering case studies from a technical and cultural viewpoint
- Reading and interpreting technical information related to engineering and IT contexts
- Participating in group project planning and implementation in an English language environment
- Analysing cultural norms and values relating to teamwork and project case studies

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Presentation	20%	1-4	Percentage	Must pass with minimum 50% overall
Report	20%	1-4		
Test	15%	1,2		
Portfolio	20%	2-4		
Practical	25%	1-4		

Introduction to Engineering Practice (Engineering Practice)

SMS Code	EE503001	*Teacher-directed learning hours*	150
Level	4	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme: No			

Aim

To enable students to develop engineering principles and applications in an integrated, multidisciplinary project-based learning environment

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Operate safely in an engineering environment
2. Produce concept models and assemblies and apply these to create a project outcome
3. Demonstrate effective communication and cultural awareness in a project-based team environment

Indicative Content

- Team roles and effective team operation
- Integration of maths and physical science concepts into physical engineering projects
- 3D Cad for detail drawings and automated subtractive and additive engineering processes
- Safe use of a range of engineering and electrical hand and power operated tools for the manufacture of prototype parts
- Effective communication with engineering technicians and others providing client services
- Reflective practice for self-analysis of project work
- Effective presentation types, technologies, skills and techniques

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Project Team Contribution	30%	1-3	CRA	Must pass with minimum 50% overall
Project outcomes	30%	1-3		
Presentation	40%	2,3		

Engineering Project (Engineering Design III)

SMS Code	EE504001	*Teacher-directed learning hours*	300
Level	5	*Authentic work experience learning hours*	
Credits	30	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	300
NQF Unit standards assessed in this course: No			
This course approved in another Programme No			

Aim

To enable students to apply engineering knowledge and problem-solving skills to conceive, design, implement and operate an engineering project to accepted standards

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Present a proposal for an engineering-based project
2. Formulate a work plan and procedures with consideration to environment and resource management, safety, ethical and cultural factors
3. Implement, operate, analyse and report on an engineering project outcome

Indicative Content

- Apply theoretical knowledge and practical skills to develop a desired engineering solution
- Create of an effective product prototype, computer model or proof of concept as the required outcome
- Design process that integrates mathematical and physical science concepts as appropriate to the outcomes
- Integration of maths and physical science concepts into physical engineering projects
- Demonstration of reflective practice throughout the project process
- Correct selection of effective presentation types, technologies, skills and techniques
- Recording of processes in appropriate media
- Teamwork and group negotiation skills

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Project outcomes	50%	1-3	Percentage	Must pass with minimum 50% overall
Presentation	15%	1-3		
Documentation	35%	1-3		

Engineering Mathematics

SMS Code	EE505001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No			

Aim

To enable students to apply general mathematical principles and equip them with appropriate engineering mathematical skills to solve engineering problems

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Apply techniques of algebra to solve engineering-related problems
2. Apply complex numbers and matrices to solve engineering-related problems
3. Apply techniques of calculus including integration and differential equations to solve engineering-related problems

Indicative Content

- Graphs and trigonometric waves
- Algebraic expressions and equations
- Complex number forms, expressions, and equations
- Logarithms & exponentials
- Trigonometry
- Matrices and simultaneous equations
- Differentiation and integration techniques in an engineering context
- Differential equation techniques in an engineering context

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Collaborative Tutorials	15%	1-3	Percentage	Must pass with minimum 50% overall
Tests	35%	1-3		
Exam	50%	1-3		

Programming for Engineers (Programming 1)

SMS Code	EE506001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme *Name of other Programme:*			

Aim

To introduce students to the concepts of program design and programming fundamentals for engineering

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Decompose a simple problem into a series of computer operations
2. Use one logic depiction method and apply it to appropriate simple tasks
3. Create programs using basic programming constructs and simple data structures
4. Implement routines as functions and as procedures and apply common methods to access files within an application

Indicative Content

- Program Design
- Algorithms
- Structured diagrams UML
- If statements, Nested Ifs, Switch statements
- Loops
- Arrays
- Data Types and Records
- Reading Files of Records
- Text files
- Version control

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Assignment	20%	1-4	Percentage	Must pass with minimum 50% overall
Tests	70%	1-4		
Lab tasks	10%	1-4		

Engineering Mechanics

SMS Code	EE507001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No *Name of other Programme:*			

Aim

To enable students to analyse the fundamental principles and laws of mechanics

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Analyse static forces in mechanics and their relationship to engineering applications
2. Analyse dynamic force systems and their relationship to engineering applications
3. Analyse the principles of fluids for solving engineering-related problems

Indicative Content

- Basic mechanical theory as applied to 2-dimensional systems
- Systems of static loads and simple frameworks
- Shear force and bending moment diagrams
- Friction on level and inclined surfaces
- Centroid and Centre of Gravity
- Linear and angular motion
- Forces and motion
- Work and energy
- Relative motion
- Principles of fluids

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Tests	30%	1,2	Percentage	Must pass with minimum 50% overall
Laboratories	20%	1,2		
Exam	50%	1-3		

Platforms and Devices for Engineering (Engineering Computing)

SMS Code	EE508001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme: *Name of other Programme:*			

Aim

To enable students to use a range of devices, platforms and concepts utilised within the IT and engineering industry

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Use and recall systems tools, command line and scripting to configure, maintain, and secure operating systems in local and virtual settings.
2. Identify, explain, install and troubleshoot typical faults (both hardware and OS) for the main components of a computer.
3. Connect and configure a range of devices to enable network functionality

Indicative Content

- Installing, configuring and selecting PC hardware components
- Operating systems installation and maintenance (systems tools)
- Bootloaders
- Overview of operating systems (mobile, desktop, service, etc.)
- Use a VM & develop basic understanding of virtualisation
- Formats (media formats; open vs. binary)
- Basic use of transmission protocols (e.g. FTP, SSH)
- File systems
- Backup and RAID systems
- Troubleshooting hardware and software
- Connecting and configuring devices (Bluetooth, Wi-Fi, printers, etc.)/Mounting drives
- Command line proficiency
- Basic network configuration
- ‘Embedded’ (Raspberry Pi, Arduino, Development platforms)
- Environmental impact of IT
- Identify sustainability issues involved in purchasing, using and disposing of devices.

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Exam	40%	1,2	Percentage	

Skills-based Assessment	40%	2,3		Must pass with minimum 50% overall
Assignment	20%	1,2,3		

Electronic Principles

SMS Code	EE509001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No *Name of other Programme:*			

Aim

To enable learners to apply general electronic skills to basic circuits

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Explain fundamental principles of digital and analogue electronics.
2. Apply electronic principles to basic electronic circuits.
3. Demonstrate the use of electronic measuring equipment.

Indicative Content

- Thevenin's theorem, superposition theorem and maximum power transfer theorem.
- Combinational logic circuits, sequential logic, registers, counters and encoders.
- Diodes, rectification and smoothing. Simple Zener and three-terminal regulated power supplies. Switching power supplies.
- Linear and switching operation of BJT and MOSFET devices.
- Operational Amplifier theory and applications.
- Electronic meters, oscilloscope, function generators and component testers.

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Assignments	30%	1-3	Percentage	Must pass with minimum 50% overall
Laboratories	20%	1-3		
Test	50%	1-3		

Material Science

SMS Code	EE510001	*Teacher-directed learning hours*	150
Level	5	*Authentic work experience learning hours*	
Credits	15	*Student-managed learning hours*	
Prerequisites	No	*Total Learning Hours*	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme No			

Aim

To enable students to recognise the characteristics and properties of common engineering materials and elements of biology and chemistry relevant to mechanical and process engineering.

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Explain basic materials science chemistry and specify methods to change material properties
2. Test and analyse properties of materials used in engineering
3. Apply selection criteria for engineering materials and identify likely causes of material failure

Indicative Content

- Characteristics and properties of ferrous and non-ferrous metals, iron-carbon diagram, steels, cast iron, ferrous alloys, cold & hot working.
- Other materials such as ceramics, plastics, composites, timber and concrete
- Material testing, physical properties, tensile, compressive, fatigue, and NDT testing to relevant standards.
- Heat treatment processes and effects.
- Surface hardening processes.
- Surface coatings.
- Fibre reinforced composites, types of materials, types of reinforcements.
- Selection of materials for engineering applications.
- Case study approach to chemistry and biology covering processes relevant to industries such as HVAC, food production, fuel production, waste treatment, natural raw material processing (eg timber, meat, animal fibre, minerals etc)

Assessment

Assessment Activity	Weighting	Learning Outcomes	Assessment Grading Scheme	Completion Requirements
Assignment	20%	1,3	Percentage	Must pass with minimum 50% overall
Project / Lab	30%	1-3		
Test	50%	1,2		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Elective	Academic Writing	1	510300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	REYNOLDS, Stephanie	Kanazawa C. 31.104		TBA

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Academic English	Students will learn about the structure and features of academic essays and research reports written in English. Students will practice the process of writing academic English through planning, researching, writing, proofreading, and revising written works related to their specific field of study.
2	Writing	
3	Grammar	
4	Vocabulary	
5	Research	

Course Description and Expectations for Students (10.5pt)

Academic Writing is a course for students to develop and practice academic English writing. Topics include essay structure, the process of writing academic papers, how to research and cite references, and grammatical structures particularly useful to academic writing in English. Students will learn how to clearly communicate topics related to their specific field of study in an appropriate academic English style and format.

Advice on taking this course:
-Keep all paper assignments and handouts in a folder
-Keep digital copies of all electronic assignments
-Check email often
-Be prepared for each class and submit assignments on time
-Ask questions or communicate with the teacher regularly by email or in office hours

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books: Great Writing: From Great Essays to Research Level 5 ISBN 978-0-357-02086-9
Grammar for Great Writing Level C ISBN 978-1-337-11861-3
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

None

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Students will be able to understand and explain the need and purpose of English academic writing.
②	b, d, g	Students will be able to understand how to plan, organize, write, and revise essays in English.
③	e, h	Students will be able to identify the features of response essays and research essays.
④	c, f	Students will be able to organize research sources and appropriately cite reference materials.
⑤	c, g	Students will be able to identify features of complex grammatical structures in English academic writing.
⑥	f, i	Students will be able to use complex grammatical structures appropriately in academic essays.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	80	0	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	20	0	0	0	0	25
	Ability to think, reason and create	0	0	20	0	0	5	0	25
	Collaboration and leadership	0	0	10	0	0	0	0	10
	Announcement / Expression / Communication	0	0	20	0	0	0	0	20
	Attitude and motivation for learning	0	5	10	0	0	5	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	(10%) 5 quizzes based on the content of in-class or assigned practice activities. Feedback will be given during the next class session.
	②		
	③		
	④		
	⑤	✓	
	⑥	✓	
Reports	①	✓	(80%) 3 essays and 1 academic research paper due classes 4, 7, 10, and 14. Each essay will be graded according to the following criteria: Writing process, task achievement, coherence and cohesion, use of target vocabulary and grammar, format and appropriate citations and references. Verbal and written feedback will be given in writing conferences with the teacher during class sessions.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	(10%) In-class or assigned worksheets and/or readings for preparation and review Feedback will be given during the next class session.
	②		
	③		
	④		
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
You will be able to read and understand engineering related topics in English, write and communicate in appropriate academic writing style and format to a specific and wide audience of your intent and knowledge on the engineering subject, and apply advanced understanding of research methods and referencing to your analysis and production of academic texts.	You will be able to read and understand engineering related topics in English, answer questions using simple academic and English acquired from the lessons, and apply basic understanding of when and where to use different styles and formats when analyzing or producing academic texts.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Essay 1: Students will participate in brainstorming and writing an essay outline.	Individual, pair, and group work; lecture; exercises	Review: Complete brainstorm and outline worksheet Preview: Complete Grammar Worksheet 1	50
2 /	Essay 1: In-class writing Review and revise Grammar Worksheet 1	Individual, pair, and group work; lecture; exercises	Review: Complete essay draft 1 Preview: Complete Grammar Worksheet 2 Study for Quiz	50
3 /	Essay 1: Feedback and revision Review and revise Grammar Worksheet 2 Quiz 1	Individual, pair, and group work; lecture; exercises	Review: Revise essay based on feedback Preview: Complete Grammar Worksheet 3	50
4 /	Essay 2: Students will participate in brainstorming and writing an essay outline. Review and revise Grammar Worksheet 3	Individual, pair, and group work; lecture; exercises	Review: Complete brainstorm and outline worksheet Preview: Complete Grammar Worksheet 4	50
5 /	Essay 2: In-class writing Review and revise Grammar Worksheet 4 Quiz 2	Individual, pair, and group work; lecture; exercises	Review: Complete essay draft 1 Preview: Complete Grammar Worksheet 5 Study for Quiz	50
6 /	Essay 2: Feedback and revision Review and revise Grammar Worksheet 5	Individual, pair, and group work; lecture; exercises	Review: Revise essay based on feedback Preview: Complete Grammar Worksheet 6	50
7 /	Essay 3: Students will participate in brainstorming and writing an essay outline Review and revise Grammar Worksheet 6 Quiz 3	Individual, pair, and group work; lecture; exercises	Review: Complete brainstorm and outline worksheet Preview: Complete Grammar Worksheet 7	50
8 /	Essay 3: In-class writing Review and revise Grammar Worksheet 7	Individual, pair, and group work; lecture; exercises	Review: Complete essay draft 1 Preview: Complete Grammar Worksheet 8 Study for Quiz	50
9 /	Essay 3: Feedback and revision Review and revise Grammar Worksheet 8 Quiz 4	Individual, pair, and group work; lecture; exercises	Review: Revise essay based on feedback Preview: Complete Grammar Worksheet 9	50
10 /	Research Essay: Students will participate in brainstorming and writing an essay outline and bibliography (1) Review and revise Grammar Worksheet 9	Individual, pair, and group work; lecture; exercises	Review: Complete brainstorm and outline worksheet Preview: Complete Grammar Worksheet 10	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Research Essay: Students will participate in brainstorming and writing an essay outline and bibliography (1) Review and revise Grammar Worksheet 10 Quiz 5	Individual, pair, and group work; lecture; exercises	Review: Complete bibliography and outline	50
12 /	Research Essay: In-class writing	Individual, pair, and group work; lecture; exercises	Review: Complete essay draft 1	50
13 /	Research Essay: Feedback and revision, In-class writing	Individual, pair, and group work; lecture; exercises	Review: Revise essay based on feedback	50
14 /	Research Essay: Feedback and revision, In-class writing	Individual, pair, and group work; lecture; exercises	Review: Complete research essay final draft	50
15 /	Review Students will review and reflect on their performance in the course. *Research Essay returned*	Review exercises Evaluation & feedback		

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科　目　名	単 位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	社会科学（技術者倫理）	2	510400	前学期	講義/学修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
4年	栃内文彦	金沢C： 1.308		火曜 13:15-14:55 金曜 10:35-12:15

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1 2 3 4 5	科学技術者が共有する価値 専門職倫理と倫理綱領 グローバル社会の中の技術者 倫理的意思決定の方法 社会の中の科学技術	本科目の目的は、科学技術がグローバル化の進む今日の社会および環境に与える影響について考察し、科学技術の目的・役割と社会との相互作用についての理解を深めることである。 また、科学技術者が専門職として担う倫理的・社会的責任を検討する。さらに、実務を行う上で直面する倫理的な問題を検討し、それらを解決する問題解決能力の向上を図る。 以上の学習を通して、「科学技術者倫理」が単に規範の遵守ではなく、価値のバランスを取りながら「自らがなすべき行動を設計する」という創造的な知的営みであることを学ぶ。

授業の概要および学習上の助言

本講義は学修単位であるため、１単位を50 分45 回分の学習とし、50 分授業15 回に対して50 分30 回分の自学自習を行って下さい。

1. 概要説明および本科目と既習科目およびICTの教育目的との関係に関する解説
2. なぜ、今、科学技術者の倫理が問われているのか
3. 科学技術者の倫理とは何か／科学技術者が特別の責任を負う理由
4. 科学技術者が意思決定を迫られる状況
5. 科学技術者が重視すべき価値とは何か：専門職集団と倫理綱領
6. 科学技術者としていかに行動すべきか：倫理的問題解決の方法
7. 組織のなかの科学技術者：企業倫理と科学技術者倫理
8. 事例の検討（ケーススタディ）：現実の事例を題材
9. 事例の検討（ケースメソッド）：仮想事例などを通して討議
10. グローバル社会における科学技術者の役割
11. 科学技術者の新しい役割と科学技術者倫理
12. 各専門領域における倫理的問題や事例の検討

・新聞などで報道される科学技術に関わる事件などを科学技術者の倫理の観点から分析する姿勢を持つこと。
・不明な用語などは、辞書・事典・インターネットなどを使って調べておくこと。
・第三者的・評論家的に講義に参加するのではなく、科学技術を担う「当事者」として、「道徳的行為者」としての自覚を持ちながら、講義で提示される問題を自分ならどうするかという観点で考えること。

【教科書および参考書・リザーブドブック】
教科書：本質から考え行動する科学技術者倫理[白桃書房]
参考書：　　ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：

履修に必要な予備知識や技能

・「日本学」をはじめとする他の科目の講義内容と深く関連しているので、復習しておくこと。
・グループディスカッションを行うので、これまでの経験を踏まえて、建設的な議論を進めることができるようにしておくこと。
・この科目では、将来の科学技術を担う者として現代社会と科学技術の関係を考察するため、新聞をしっかり読んで政治、経済、文化、科学技術などの動向に常に関心を払い、自分の問題として考える態度を身に付けておくこと。

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	b, h	科学技術と人間社会の在り方（経済活動を含む）との相互作用について、具体的な例を挙げながら説明できる
②	b, c, g	科学技術者が専門職として実務を行う上で担う責任や共有すべき価値（安全など）について理解し、これを他者に説明できる
③	b, d, f	倫理綱領についての知識を持つとともに、企業などが組織として行う倫理対策について説明できる
④	b, e, h	倫理的ジレンマを疑似体験し、その問題点を分析するとともに自分の経験や事実関係の調査と関連づけながら考察できる
⑤	a, b, h	セブン・ステップ・ガイドなどの倫理的問題解決の方法について理解し、これらの方法を具体的な事例において適用できる
⑥	b, c, i	本科目の学習教育目標とICTの教育目的・目標、さらに科学技術者が持つべき資質・能力との関係を理解し、自己点検できる

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		25	15	30	15	0	5	10	100
総合力指標	知識を取り込む力	10	7	10	0	0	0	0	27
	思考・推論・創造する力	10	8	10	5	0	0	0	33
	コラボレーションとリーダーシップ	0	0	0	5	0	0	0	5
	発表・表現・伝達する力	5	0	5	5	0	0	0	15
	学習に取組む姿勢・意欲	0	0	5	0	0	5	10	20

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①	レ	・達成度を確認する試験を第14回の時間中に実施する。総合評価に占める割合は25%。受験しない場合は単位を認めない。なお、この試験は「定期試験」ではない。
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
クイズ 小テスト	①		・科目での達成度の指標とするため、授業で検討するケースの倫理的問題構造などを分析する課題、倫理綱領に関する課題、企業倫理プログラムに関する課題を、それぞれ実施（提出）する。
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
レポート	①	レ	・本科目の受講を経て倫理的分析能力がどのように変化したかを確認する課題を実施（提出）する。 ・グループ討議で検討するケースに関して、倫理的な問題の認識、分析能力、倫理的問題解決方法、具体的事例への適応能力等を総合的に問う課題を実施する。 ・科学技術の専門家として求められる価値観について考察する課題を実施（提出）する。
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
成果発表 （口頭・実技）	①		・数名のグループを作り、討議を行い、倫理的なジレンマを擬似体験することを通じて、倫理的な問題の存在と種類を分析し、道徳的行為者として、エシックステストなどを適切に用いた問題解決方法を確認し、結果を報告する。
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		・本科目と、ICTの教育・学習目標との関連について自己点検する記述式の課題を適時に実施（提出）する。
	②		
	③		
	④		
	⑤		
	⑥	レ	
その他	①		・グループ討議には積極的に参加すること。グループ討議への貢献度を相互に評価する。 ・本科目は毎回の講義への積極的参加を前提としているので、正当な理由のない遅刻や欠席などは減点する。 ・本科目の授業内容を鑑みて、不正行為には十分に注意すること（自ら不正を、不正とみなされることを含めて行わない事は無論、不正をそそのかしたり、看過したりもしないこと）。これらに該当すると判断された場合は、厳重に対処する。
	②		
	③		
	④		
	⑤		
	⑥	レ	

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・科学技術者として直面する可能性のある倫理的な問題の存在と種類について、具体例を挙げながら十分説明できる。 ・倫理的な想像力、倫理的問題を認識し分析する能力、責任感を向上させる必要性などを、説得力をもって他者に説明できる。 ・倫理綱領とそこに含まれる価値観について、および企業などが組織として行う倫理対策について具体的に説明できる。 ・倫理的ジレンマの疑似体験から得たことを、自分の経験や考え方と関連づけながら、建設的に考察することができる。 ・エシックステストなどの倫理的問題解決の方法について理解し、これらの方法を具体的な事例において十分適用できる。	・科学技術に関する倫理的な問題の存在と種類について説明できる。 ・倫理的な想像力、倫理的問題を認識し分析する能力、責任感を向上させる必要性などを説明できる。 ・倫理綱領についての知識を持つとともに、企業などが組織そして行う倫理対策について説明できる。 ・倫理綱領とそこに含まれる価値観について、および企業などが組織として行う倫理対策について説明できる。 ・倫理的ジレンマを疑似体験し、そこから得たことを自分の経験や考え方と関連づけながら考察することができる。 ・エシックステストなどの倫理的問題解決の方法について理解し、これらの方法を具体的な事例において適用できる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	※第1～2回では、本科目への導入として、第2回までの「学習内容」の事項について、講義やグループ討議などを通して検討・考察する。 ・科目の目的・目標、内容、課題、評価方法などに関する解説 ・本学の教育目的・目標との関連に関する解説 ・既習科目との関連についての解説	・PCを用いた講義 ・グループ討議 ・討議結果の発表 など	・復習：初回配布資料や本科目「学習支援計画書」などの熟読 ・次回に向けた予習：事例分析など	50 150
2 ／	（続き） ・直面する可能性のある倫理的問題に関する具体例 ・セブン・ステップ・ガイドの概説　他	・PCを用いた講義 ・グループ討議 ・討議結果の発表 など	・復習：第1～2回で学んだことについての考察の深化 ・次回に向けた予習：教科書の精読	100 100
3 ／	※現実に起きた事例をベースに倫理的考察や意思決定に必要な概念や用語などの解説を行う	・PCを用いた講義 ・関連する視聴覚教材の視聴 ・演習 など	・復習：授業で検討した事例の考察の深化 ・次回に向けた予習：教科書の精読	100 100
4 ／	※技術者としていかに行動すべきか ・倫理的問題解決の方法 ・エシックステストおよびセブン・ステップ・ガイドに関する詳細解説 ・セブン・ステップ・ガイドを用いた演習	・PCを用いた講義 ・関連する視聴覚教材の視聴やグループ討議を行うこともある ・演習	・復習：セブン・ステップ・ガイドを使った事例分析の練習 ・次回に向けた予習：次回の授業で検討する事例の概要の把握	100 100
5 ／	※第5～6回では、ケースメソッド事例に関するグループ討議を経て、第7回の「学習内容」に挙げてある事項についての考察を行う ・グループ討議	・PCを用いた講義 ・与えられた事例に関するグループ討議	・復習・次回に向けた予習：討議内容についてのさらなる検討	150
6 ／	・グループ討議（続き） ・討議結果の発表	・PCを用いた講義 ・与えられた事例に関するグループ討議 ・討議結果の発表 など	・復習：授業内で行った事例に関する考察の深化 ・次回に向けた予習：教科書の精読	150 100
7 ／	※技術者としていかに行動すべきか ※優れた意思決定がもたらすもの	・PCを用いた講義 ・関連する視聴覚教材を視聴することもある	・復習：倫理綱領についての考察の深化 ・次回に向けた予習：教科書の精読	120 80
8 ／	※なぜ、科学技術者倫理が求められているのか	・PCを用いた講義 ・関連する視聴覚教材を視聴することもある	・復習：企業の倫理的取組みについての考察の深化 ・次回に向けた予習：教科書の精読	120 80
9 ／	※第9～10回では、ケースメソッド事例に関するグループ討議を経て、第11～12回の「学習内容」に挙げてある事項についての考察を行う ・グループ討議	・PCを用いた講義 ・与えられた事例に関するグループ討議	・復習・次回に向けた予習 ・討議内容についてのさらなる検討	150
10 ／	・グループ討議（続き） ・討議結果の発表	・PCを用いた講義 ・与えられた事例に関するグループ討議 ・討議結果の発表 など	・復習：授業内で行った事例に関する考察の深化 ・次回に向けた予習：教科書の精読	150 100

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論**

し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	※Reflection （専門分野特有の問題に関する志向倫理的検討など）	・PCを用いた講義 ・関連する視聴覚教材を聴講など	・復習：授業内で行った事例に関する考察の深化 ・次回に向けた予習：教科書の精読	100 100
12 ／	※高度技術社会における技術者の新しい役割	・PCを用いた講義 ・関連する視聴覚教材を聴講など	・復習：教科書の精読 ・次回に向けた予習：科学技術の専門家として求められる価値観に関する考察	100 100
13 ／	※本質から考え行動する科学技術者倫理	・PCを用いた講義	・復習：これまでの授業内容の振り返り	200
14 ／	※これまでの授業の要点解説と達成度確認	・これまでの授業の要点解説 ・達成度確認テストの実施	・予習：テストの準備 ・復習：これまでの授業内容の振り返り ・次回に向けた予習：ポートフォリオを用いた振り返り	100 100 60
15 ／	※まとめと自己点検	・PCを用いた講義（成績概要の説明など） ・授業アンケートへの回答	・教科書での授業全体の復習	140

令和６度　　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科　目　名	単 位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	人文科学	2	510500	後学期	講義／学修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
4年	平泉　紀房 / 清水　節	21・604 21・605		授業時に予約

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	日本の歴史	日本における歴史上の人物の生涯を学ぶことで、その生き方・考え方を知り、それらを通して日本人の特質・行動規範などについて理解し、今後の自身の問題と照らし合わせて考える。さらに、各種神話や建国伝承を学ぶことで、多様な価値観の存在を知るとともに、日本人の特質を考える。一方、諸外国のもつ多様な文化・価値観にも眼を向け、日本と異なる歴史や文化・伝統を公平に評価できる真摯な姿勢の大切さを学ぶ。これらのことを通じて、「読む・聞く・考える・書く」といった基礎的能力の向上を図る。
2	日本の神話	
3	日本人の特質、国民性	
4	比較文化	
5	多様な価値観	

授業の概要および学習上の助言

本講義は学修単位であるため、１単位を50分45回分の学習とし、100分授業15回に対して100分30回分の自学自習を行って下さい。
☆本科目の授業概要は以下の通りである。
第1回～第7回目　テーマ：国際比較から日本の特質を考える。（清水担当）
１．日本、および日本人の特色や特質について、歴史や比較文化の観点から学ぶ。
２．グループ活動で「日本と外国」「過去と現在」の比較調査を行い、討議した成果を発表する。
３．相互評価を行って、自身の学習成果について振り返りを行う。

第8回目授業　テーマ：地域の歴史・文化を学ぶ。（清水担当）
４．白山と白山信仰について学習する。

第9回～第15回　テーマ：日本人の生き方・考え方に学ぶ。（平泉担当）
５．日本の歴史上の人物に関する講義を聴き、その人物の生き方・考え方（行動規範）に学ぶ。
６．日本の神話と世界の神話を比較して、日本人の特質を考える。
７．日本の建国伝承から、国の成り立ちと建国の理想について学ぶ。

【教科書および参考書・リザーブドブック】
教科書：指定なし
参考書：指定なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：世界主要国価値観データブック〔同友館〕

履修に必要な予備知識や技能

１．予習内容と聴講内容とを総合して理解し、提示されたテーマについて考察する能力
２．適切な日本語で文章にまとめる能力
３．グループ討議に積極的に参加する姿勢、および調査・考察・発表を行うための基礎能力

No.	教育目標(DP) (記号表記)	学生が達成すべき行動目標
①	e	歴史上の人物から学んだ、生き方・考え方について、適切な日本語の文章で説明できる。
②	e	日本・日本人の特質について、学習内容や調査内容をもとに適切な日本語の文章で説明できる。
③	e	日本の建国伝承から学んだ国の成り立ちと建国の理想について、適切な日本語の文章で説明できる。
④	e	海外の人々が多様な価値観をもっていることについて理解を深めることができる。
⑤	e	グループ討議・発表を通じて、自己の見解を口頭および文章で表現することができる。
⑥	i	本科目における学生の達成すべき行動目標を自己評価できる。

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	0	62	20	0	10	8	100
総合力指標	知識を取り込む力	0	0	25	0	0	0	0	25
	思考・推論・創造する力	0	0	25	0	0	0	0	25
	コラボレーションとリーダーシップ	0	0	0	10	0	0	0	10
	発表・表現・伝達する力	0	0	12	10	0	0	0	22
	学習に取組む姿勢・意欲	0	0	0	0	0	10	8	18

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①		
	②		
	③		
	④		
	⑤		
	⑥		
レポート	①	✓	「授業レポート」用紙を配布する。 それに記述された内容で、行動目標の達成度を確認・評価して返却する。 第1回～第7回（5点×4回、計20点） 第9回～第15回（6点×7回、計42点） 「授業レポート」用紙の注意事項（評価基準）をよく読んで作成する。 不明な点は教員に質問をする。
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
成果発表 （口頭・実技）	①		グループ内で分担調査し、討議する。（5点） その成果をプレゼンテーションする。（10点） 発表について相互評価を行う。（5点）
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		本科目における学生の達成すべき行動目標を自己評価する。 自己評価レポート（10点）
	②		
	③		
	④		
	⑤		
	⑥	✓	
その他	①	✓	授業中の学習態度や「授業レポート」の取組みに不良・不備がある場合は、本人に注意した上で減点方式で評価をする。 授業開始から30分以上の遅刻、極端な学習態度の不良は「欠席扱い」とする。
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
行動目標 ①②③④「授業レポート」において、課題の主旨と条件を満たし、評価基準に合致した適切な日本語の文章で、講義内容の要点および考察を具体的に記述できる。 ②④⑤グループ活動を通じて、日本と外国の比較調査を行い、その成果を明快に口頭発表することができる。 ⑥自己の達成度を適切な日本語表現で、明快に論述できる。	行動目標 ①②③④「授業レポート」において、課題の主旨と条件を満たし、評価基準に合致したある程度適切な日本語の文章で、講義内容の要点および考察を記述できる。 ②④⑤グループ活動を通じて、日本と外国の比較調査を行い、その成果を口頭発表することができる。 ⑥自己の達成度を適切な日本語表現で論述できる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	☆科目説明（ガイダンス） 本科目の目的・意義・運営方法について解説する。 ☆国際比較から日本の特質を考える 担当教員による講義を聴講する。取りあげるテーマや人物は、クラスや学科の特性に合わせる。	講義と質疑 演習（レポート作成）	テキストの予習 レポート作成準備	100 100
2 ／	☆国際比較から日本の特質を考える 担当教員による講義を聴講する。取りあげるテーマや人物は、クラスや学科の特性に合わせる。 ☆講義レポートの返却、学習成果の振り返り	講義と質疑 演習（レポート作成）	テキストの予習 レポート作成準備	100 100
3 ／	☆国際比較から日本の特質を考える 担当教員による講義を聴講する。取りあげるテーマや人物は、クラスや学科の特性に合わせる。 ☆講義レポートの返却、学習成果の振り返り	講義と質疑 演習（レポート作成）講義と	テキストの予習 レポート作成準備	100 100
4 ／	☆国際比較から日本の特質を考える グループ討議① 討議テーマに関する解説、および調査・考察・発表の方法について説明する。 また、インターネットやライブラリーセンターの蔵書などを活用し、官庁や研究所が公表している各種調査データを分析検討する。なお、各自で調査・考察した成果をグループ討議レポートにまとめる。	質疑、演習 ノートパソコン、LANケーブルを持参する。	収集資料の整理と分析 プレゼンテーション準備 グループ討議レポートの作成	120 120 120
5 ／	☆国際比較から日本の特質を考える グループ討議② 前回に続いて、グループ活動（調査・討議・発表準備）を行う。各自で調査・考察した成果をグループ討議レポートにまとめる。また、グループとして発表内容をまとめ、パワーポイントを作成する。	講義と質疑、演習 ノートパソコン、LANケーブルを持参する。	収集資料の整理と分析 プレゼンテーション準備 グループ討議レポートの作成	120 120 120
6 ／	☆国際比較から日本の特質を考える グループ発表① 各グループの成果を発表し、質疑応答と相互評価を実施する。	演習（発表と質疑応答）	発表評価シートの作成 発表の反省 自己評価レポートの作成	100 30 100
7 ／	☆国際比較から日本の特質を考える グループ発表② 各グループの成果を発表し、質疑応答と相互評価を実施する。	演習（発表と質疑応答） 発表評価シートの作成 発表の反省 自己評価レポートの作成 グループ討議レポートの提出	発表評価シートの作成 発表の反省	100 30
8 ／	☆地域の歴史・文化を学ぶ オンラインで講義動画を視聴する 白山・白山信仰について学習する。	オンライン講義 教室での授業は行わない。 各自で講義動画を視聴し、聴講メモを作成する。	聴講メモの作成	200
9 ／	☆第9回目以降の授業について（ガイダンス） 第9回目以降の授業概要・運営についての説明を行う。 ☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。	講義と質疑 授業レポート作成	復習：学習支援計画書や各種配布資料により、科目の教育目的と行動目標を確認する。	100
10 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ提出する。	前回の自己点検 講義と質疑 授業レポート作成	予習：『日本学資料集』の指定ページ部分を読んで理解してくる。 復習：返却された「授業レポート」を見直し、内容を確認する。	120 60

授業明細表

ＣＬＩＰ学習プロセスについて

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※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。	前回の自己点検 講義と質疑 授業レポート作成	予習：『日本学資料集』の指定ページ部分を読んで理解してくる。 復習：返却された「授業レポート」を見直し、内容を確認する。	120 60
12 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。	前回の自己点検 講義と質疑 授業レポート作成	予習：『日本学資料集』の指定ページ部分を読んで理解してくる。 復習：返却された「授業レポート」を見直し、内容を確認する。	120 60
13 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。	前回の自己点検 講義と質疑 授業レポート作成	予習：『日本学資料集』の指定ページ部分を読んで理解してくる。 復習：返却された「授業レポート」を見直し、内容を確認する。	120 60
14 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。	前回の自己点検 講義と質疑 授業レポート作成	予習：『日本学資料集』の指定ページ部分を読んで理解してくる。 復習：返却された「授業レポート」を見直し、内容を確認する。	120 60
15 ／	☆日本人の生き方・考え方に学ぶ 担当教員の講義を聴講して、日本人の生き方、日本国および日本人の特質について学び、提示されたテーマについて考察した内容を授業レポートにまとめ、提出する。 ☆自己点検 これまでの学習成果について、教員・学生相互で確認を行う。	前回の自己点検 講義と質疑 授業レポート作成 自己評価レポートの提出	ポートフォリオを提出する。	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Mathematical Statistics	2	510700	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	TAKAI, Yuuki	Kanazawa C:23.403		Make an appointment in class

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Probability	Students will (1) acquire basic knowledge of probability. (2) learn probability calculations. (3) learn typical distribution functions such as the normal distribution, Student's t-distribution. (4) learn methods for interval estimation and hypothesis testing.
2	Conditional Probability	
3	Probability Distribution	
4	Estimation	
5	Hypothesis Testing	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a course in statistical analysis of data. We will cover the following topics:
1. Probability and Random Variables
   (1) Event and Sample Space, (2) Probability and Conditional Probability
   (3) Random Variables and Probability Distribution Functions, (4) Typical Probability Distribution Functions
2. Descriptive Statistics
   (1) Frequency Distribution Table and Histogram, (2) Average
3. Interval Estimation and Hypothesis Testing
   (1) Population and Sample, (2) Interval Estimation of Population Mean
   (3) Hypothesis Testing of Population Mean

Students are required to actively participate in the class. Students are expected to check for messages/materials on the KIT Inside website before every class/on a regular basis.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Introductory Statistics (OpenStax) https://openstax.org/details/introductory-statistics (license: CC-BY)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of basic calculus.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Be able to understand the concept of probability and calculate probability using the laws of probability.
②	h	Be able to calculate mean and variance for random variables.
③	h	Be able to analyze data by calculating the necessary statistics from data.
④	h	Be able to estimate and test population mean, variance using a sample distribution.
⑤	i	Understand the meanings of fundamental English words for statistics.
⑥	i	Be able to understand the contents of each class, work on assigned tasks, and attend every class.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	20	0	0	0	20	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	40	10	0	0	0	10	60
	Ability to think, reason and create	0	20	5	0	0	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	5	0	0	0	10	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	∠	There will be three quizzes. Each of the 1st and 2nd quizzes will comprise 15% of the overall evaluation, and the final quiz will comprise 30% (for a total of 30+30%). The final quiz will be given at the end of the semester to assess the degree of student achievement.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Reports	①	∠	A report will be assigned and will comprise 20% of the overall evaluation. The report should be written carefully with text, mathematical formulas, numerical values, graphs, etc. It should logically describe the process of tackling the problem. Copying the reports of others is not permitted. The submission date is to be strictly observed. Details for each assignment and the grading criteria will be announced in class.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	∠	Students will be evaluated on motivation, attitude and commitment to task. This will comprise 20% of the overall (term) evaluation.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Understand the concept of probability correctly and be able to calculate probabilities appropriately. (2) Understand the meaning of random variables appropriately and calculate the mean and variance of a probability distribution. (3) Use common probability distributions to calculate probabilities in various situations. (4) Correctly calculate the statistical values required for data analysis. (5) Perform appropriate interval estimation and hypothesis testing using a sample distribution. (6) Apply course contents to various statistical problems.	(1) Understand the concept of probability and be able to calculate probabilities. (2) Understand the meaning of random variables and calculate the mean and variance of a probability distribution. (3) Calculate probability using common probability distributions. (4) Calculate the statistical values required for data analysis. (5) Perform interval estimation and hypothesis testing using a sample distribution. (6) Apply course contents to statistical problems.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Basic statistics Basics of probability	Lecture, practice	Understand the syllabus of this course. Review the content of the lecture. Prepare for the next class.	200
2 /	Basics of probability Conditional probability	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
3 /	Conditional probabilities	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
4 /	Random variables and probability distributions	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
5 /	Quiz (classes 1 to 4, written examination) Mean and variance of a random variable	Implementation of quiz Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
6 /	Common probability distributions (binomial distribution)	Self-check Lecture, practice, interactive activities Review and self-reflection Returning quiz papers	Review the content of the lecture. Prepare for the next class.	200
7 /	Common probability distributions (standard normal distribution, normal distribution)	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
8 /	Common probability distributions (normal distribution, Student's t-distribution)	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
9 /	Quiz (classes 5 to 8, written examination) Basic concept of speculative statistics Population and sample Basic concept of estimation and testing	Implementation of quiz Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
10 /	Interval estimation of population mean	Self-check Lecture, practice, interactive activities Review and self-reflection Returning quiz papers	Review the content of the lecture. Prepare for the next class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Interval estimation of population mean Concept of hypothesis testing Test of population mean	Implementation of quiz Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
12 /	z test of population mean Organization and analysis of data Report (Interval estimate and hypothesis test. Analyze the data collected by each student.)	Lecture, practice, interactive activities	Review the content of the lecture. Prepare for the next class.	200
13 /	t test of population mean Organization and analysis of data Report (Interval estimate and hypothesis test. Analyze the data collected by each student.)	Lecture, practice, interactive activities Review and self-reflection	Review the content of the lecture. Prepare for the next class.	200
14 /	Final quiz	Quiz on contents of # 1 - # 13 Self-study / Q&A		200
15 /	Final quiz return Self-reflection on class Self-evaluation	Return final quiz results and reports on integrated subject	Review the content of the lecture.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IA (a)	1	511000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	REYNOLDS, Stephanie	Kanazawa C: 31.104		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to improve English communication skills while sharing opinions in discussions, writing, and presentations. Students will learn critical thinking skills and gain knowledge about various topics related to engineering. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Engineering	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to computer science and robotics.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, skill review, written response, and/or reading/listening comprehension quizzes based on the content of class activities and assignments (20%): Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given during the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One roundtable discussion/presentation project (30%) Project includes an outline, delivery & participation in discussion, and self-evaluation/reflection. Feedback will be given during the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction/Reading I Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 1	50
2 /	Quiz 1 Theme I: Ethics & Information (1) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 2	50
3 /	Quiz 2 Theme I: Ethics & Information (2) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 3	50
4 /	Quiz 3 Theme I: Ethics & Information (3) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 4	50
5 /	Quiz 4 Theme I: Ethics & Information (4) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities.	50
6 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Outline Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Draft 1	50
7 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Draft 1 Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Reading II Students will participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 1	50
9 /	Quiz 5 Theme: Artificial Intelligence (1) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 2	50
10 /	Quiz 6 Theme: Artificial Intelligence (2) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 3	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Quiz 7 Theme: Artificial Intelligence (3) Students will review and discuss topics related to the reading or videos. *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 4	50
12 /	Quiz 8 Theme: Artificial Intelligence (4) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 5	50
13 /	Roundtable Discussion/Presentation Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to participate in a roundtable discussion.	Individual, pair, and group work; discussion	Review: Complete Discussion Outline	50
14 /	Roundtable Discussion/Presentation Students will present and discuss ideas, opinions, and research related to the topic in a roundtable discussion. Students will complete a written reflection.	Individual, pair, and group work; discussion	Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation evaluation returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IA (b)	1	511000	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	UTSUNOMIYA, Takako	Kanazawa C: 31.104		Monday 15:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to improve English communication skills while sharing opinions in discussions, writing, and presentations. Students will learn critical thinking skills and gain knowledge about various topics related to engineering. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Engineering	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to computer science and robotics.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, skill review, written response, and/or reading/listening comprehension quizzes based on the content of class activities and assignments (20%): Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given during the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One roundtable discussion/presentation project (30%) Project includes an outline, delivery & participation in discussion, and self-evaluation/reflection. Feedback will be given during the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction/Reading I Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 1	50
2 /	Quiz 1 Theme I: Ethics & Information (1) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 2	50
3 /	Quiz 2 Theme I: Ethics & Information (2) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 3	50
4 /	Quiz 3 Theme I: Ethics & Information (3) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading I – Part 4	50
5 /	Quiz 4 Theme I: Ethics & Information (4) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities.	50
6 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Outline Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Draft 1	50
7 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Draft 1 Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Reading II Students will participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 1	50
9 /	Quiz 5 Theme: Artificial Intelligence (1) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 2	50
10 /	Quiz 6 Theme: Artificial Intelligence (2) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 3	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Quiz 7 Theme: Artificial Intelligence (3) Students will review and discuss topics related to the reading or videos. *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 4	50
12 /	Quiz 8 Theme: Artificial Intelligence (4) Students will review and discuss topics related to the reading or videos.	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading II – Part 5	50
13 /	Roundtable Discussion/Presentation Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to participate in a roundtable discussion.	Individual, pair, and group work; discussion	Review: Complete Discussion Outline	50
14 /	Roundtable Discussion/Presentation Students will present and discuss ideas, opinions, and research related to the topic in a roundtable discussion. Students will complete a written reflection.	Individual, pair, and group work; discussion	Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation evaluation returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IB (a)	1	511200	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	REYNOLDS, Stephanie	Kanazawa C: 31.104		Friday 15:00-17:00

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to improve English communication skills while sharing opinions in group discussions, presentations, and in writing. Students will learn critical thinking skills and content related to the theory of knowledge including ways of knowing. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Knowledge	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: Van de Lagemaat, Richard. (2015). Theory of Knowledge for the IB Diploma, 2nd Ed. Cambridge.
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to ways of knowing.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

	Criteria and Ratio \ Evaluation Method	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, skill review, and/or reading/listening comprehension quizzes based on the content of in-class activities and assignments (20%): Feedback will be given in the next class session.
	②	レ	
	③		
	④		
	⑤	レ	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given in the next class session.
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥	レ	
Presentations	①		One jigsaw presentation project (30%) Project includes an outline, delivery of presentation, preparation of supplementary materials, and self-evaluation/reflection. Feedback will be given in the next class session.
	②	レ	
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	レ	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given in the next class session.
	②	レ	
	③		
	④		
	⑤	レ	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
2 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (1) Quiz 1	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
3 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (2) Quiz 2	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
4 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (3) Quiz 3	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
5 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (4) Quiz 4	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
6 /	Students will review, discuss, and brainstorm ideas and opinions. Students will research related information to support their ideas. Theme: Knowers and Knowing (5) Quiz 5	Individual, pair, and group work; discussion	Review: Complete outline and Reaction/Response Essay Draft 1	50
7 /	Students will brainstorm ideas and opinions. Students will research and learn how to appropriately reference sources to write a reaction/response essay.	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Students will participate in writing conferences. Students will create teams, choose topics, and participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
9 /	Students will research information related to their topic and learn how to appropriately reference sources for a presentation. Theme: Ways of Knowing	Individual, pair, and group work; discussion	Review: Start presentation outline	50
10 /	Students will continue to research and organize presentation contents. Theme: Ways of Knowing	Individual, pair, and group work; discussion	Review: Complete presentation outline	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Students will prepare presentation slides and supplementary materials for their presentation. Theme: Ways of Knowing *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Review: Complete presentation slides and supplemental materials Reading – Various articles, book/web resources	50
12 /	Jigsaw Presentation/Discussion Theme: Language, Sense Perception, Reason Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 6	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
13 /	Jigsaw Presentation/Discussion Theme: Emotions, Intuition, Imagination Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 7	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
14 /	Jigsaw Presentation/Discussion Theme: Memory, Faith Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 8	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation/Discussion Project Returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IB (b)	1	511200	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	UTSUNOMIYA, Takako	Kanazawa C: 31.104		Monday 15:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to improve English communication skills while sharing opinions in group discussions, presentations, and in writing. Students will learn critical thinking skills and content related to the theory of knowledge including ways of knowing. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Knowledge	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: Van de Lagemaat, Richard. (2015). Theory of Knowledge for the IB Diploma, 2nd Ed. Cambridge.
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to ways of knowing.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, skill review, and/or reading/listening comprehension quizzes based on the content of in-class activities and assignments (20%): Feedback will be given in the next class session.
	②	レ	
	③		
	④		
	⑤	レ	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given in the next class session.
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥	レ	
Presentations	①		One jigsaw presentation project (30%) Project includes an outline, delivery of presentation, preparation of supplementary materials, and self-evaluation/reflection. Feedback will be given in the next class session.
	②	レ	
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	レ	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given in the next class session.
	②	レ	
	③		
	④		
	⑤	レ	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
2 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (1) Quiz 1	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
3 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (2) Quiz 2	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
4 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (3) Quiz 3	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
5 /	Students will review and discuss topics related to the theme. Theme: Knowers and Knowing (4) Quiz 4	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
6 /	Students will review, discuss, and brainstorm ideas and opinions. Students will research related information to support their ideas. Theme: Knowers and Knowing (5) Quiz 5	Individual, pair, and group work; discussion	Review: Complete outline and Reaction/Response Essay Draft 1	50
7 /	Students will brainstorm ideas and opinions. Students will research and learn how to appropriately reference sources to write a reaction/response essay.	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Students will participate in writing conferences. Students will create teams, choose topics, and participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
9 /	Students will research information related to their topic and learn how to appropriately reference sources for a presentation. Theme: Ways of Knowing	Individual, pair, and group work; discussion	Review: Start presentation outline	50
10 /	Students will continue to research and organize presentation contents. Theme: Ways of Knowing	Individual, pair, and group work; discussion	Review: Complete presentation outline	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Students will prepare presentation slides and supplementary materials for their presentation. Theme: Ways of Knowing *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Review: Complete presentation slides and supplemental materials Reading – Various articles, book/web resources	50
12 /	Jigsaw Presentation/Discussion Theme: Language, Sense Perception, Reason Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 6	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
13 /	Jigsaw Presentation/Discussion Theme: Emotions, Intuition, Imagination Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 7	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
14 /	Jigsaw Presentation/Discussion Theme: Memory, Faith Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 8	Individual, pair, and group work; discussion	Preview: Study for the quiz Review: Complete the worksheet based on the class activities. Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation/Discussion Project Returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IIIA	1	511500	First	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	TAKIMOTO, Akihiro / CADZOW, Philip	Kanazawa Campus 31-104		Tuesday 16:30-17:30

Course Objectives

	Keywords	Learning Objectives
1	Life-long sports	The student will learn to adopt sports in everyday life to stay healthy
2	Safety	The student will develop safety skills to take part in sports in a safe way
3	Understanding rules	The student will understand the importance of following rules in sports
4	Pleasure of sports	The student will find their own way to enjoy sports and fitness
5		

Course Description and Expectations for Students

The sports for this course will be preparation for sports day, softball, and tennis.

Each lesson the Student is expected to:

1. Wear clothes appropriate for playing sports and exercising (this will be check by the instructor and participation may be withheld if the clothing does not meet the requirements).
2. To be aware of safety at all times and to know that there are inherent dangers in playing sports.
3. To undertake this course seriously and to take their health and future livelihood seriously.
4. To try their best to enjoy the sports being played, even if it isn't their preferred sport.
5. To participate in the sports with the intention of improving.

The class will start on time and will warm-up, practice sports drills, then as the student improves at the sport games will be played.

Required Materials
Textbooks:
Reference books: Active Sports 2022
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites)

To be able to receive instructions and information about sports rules, enjoying sports, and health.
The ability to follow rules of softball and tennis after they have been presented to them.

No.	Program Objectives	Target Abilities for Students
①	d	Students will be able to understand the concept of lifelong sports
②	d	Students will be able to understand the way to train basic strength
③	d	Students will be able to understand how to conduct sports in a safe way
④	e	Students will learn how to play softball and develop their skills in the game
⑤	e	Students will be able to play tennis and develop their skills in the game
⑥		

Evaluation Criteria

	Criteria and Ratio \ Evaluation Method	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	0	0	0	50	0	0	50	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	0	0	0	0	0
	Ability to think, reason and create	0	0	0	25	0	0	0	25
	Collaboration and leadership	0	0	0	25	0	0	0	25
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	50	50

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①	✔	There will be final games of tennis and softball where points will be awarded for how well the student performs. 25points for each sport for a total of 50 points.
	②		
	③		
	④	✔	
	⑤	✔	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✔	In demonstration of the values of this class; fitness, future health, discipline, effort, and participation, the student's eagerness, attendance, and attitude will be evaluated. For a total of 50 points.
	②	✔	
	③	✔	
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
The ideal student will be able to understand the concept of life-long sports and apply it by showing a passion for sports and fitness in each class. They will actively monitor their, and others safety in class. They will show enjoyment of sports and bring enthusiasm to each class. The ideal student will comprehend the rules of tennis and softball to the extent that they can play in a fair manner and respect their opponents.	The standard student will be able to show a general understanding of the need for sports but they might not have the passion to be excited for sports. They will be able to participate in all sports in a safe manner. They will be able to participate in all sports required of them and show effort in actively participating. The standard student will understand the rules of both tennis and softball.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
1 /	Introduction Syllabus explanation	Lecture: Lifelong sports and the importance of health.	Review: Lifelong sports lecture	100
2 /	Explanation of the rules of Softball, along with explanation of the equipment to be used. Allocation of designated equipment organizers	Lecture: Rules of Softball, Equipment of Softball	Assignment Due: Rules of Softball Review: rules of softball lecture	100
3 /	Preparation for sports day. Various sports will be practiced	Lecture and Active Learning	Review: Sports for sports day	100
4 /	Practice drills for softball. Lecture on the basic techniques used in softball	Lecture and Active Learning	Review: Basic techniques	100
5 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100
6 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100
7 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100
8 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100
9 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100
10 /	Develop softball skills by practicing drills to improve and then using those skills in practice games.	Lecture and Active Learning	Review: Game performance	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
11 /	Lecture on the rules of tennis, and how matches are run. Introduction to the use of tennis racquet and balls. Designation of equipment preparatory persons.	Lecture: Rules of Tennis and how scoring is counted.	Review: tennis rules Assignment Due: tennis rules.	100
12 /	Lecture and Demonstration on the fore stroke and back stroke in tennis. Practice of tennis strokes.	Lecture and Active Learning	Review: fore stroke and back stroke.	100
13 /	Underhand + overhand serve lecture, Demonstration and practice.	Lecture and Active Learning	Review: Service in tennis	100
14 /	Volley practice and demonstration of how a full match is played.	Lecture and Active Learning	Review: volleys in tennis	100
15 /	Doubles matches of tennis.	Lecture and Active Learning	Review: doubles game performance	100

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Health and Physical Education IIIB	1	511600	Second	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	TAKIMOTO, Akihiro / CADZOW, Philip	Hakusanroku C: 101.201		Tuesday 16:30~17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Lifelong sports	Students will learn to adopt sports in everyday life in order to keep and promote health. Also, they will be able to take part in sports with precautions for safety's sake. They will learn why they need to follow the rules while taking part in sports. At the same time, they will learn the importance to enjoy sports themselves.
2	Safety	
3	Following rules	
4	Pleasure of sports	
5		

Course Description and Expectations for Students (10.5pt)

Basic living health, Preparations for sports day, Preparations for ball game day, Tennis ,and Badminton.

1. Wear proper sports attire. (the P.E. instructor will check it each time).
2. Since Sports can be dangerous, pay attention to safety.
3. Understand the importance of lifelong sports.
4. Understand the pleasure of sports.

Take part in sports with an application for improvement.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books: Active sports 2020

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Be instructed in news and information about sports and health.
Examine the rules of tennis, singles, and doubles badminton.

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to understand lifelong sports
②	d	Students will be able to understand basic strength
③	d	Students will be able to understand safety of sports
④	d, e	Students will be able to understand doubles badminton
⑤	d, e	Students will be able to understand tennis
⑥	d, e	Students will be able to understand singles badminton

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	20	30	0	0	50	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	0	0	0	0	20
	Ability to think, reason and create	0	0	0	15	0	0	0	15
	Collaboration and leadership	0	0	0	15	0	0	0	15
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	50	50

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		The student must submit reports about the rules of badminton and tennis. Full points of each report is 10 points. Total points is 20 points.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		Full points for badminton is 15 points. The point total on the badminton games is 15. The point total for tennis is 15 points. Combined is 30 points.
	②		
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	PE will be important for students to understand their health and physical strength, and this class will be an opportunity of experiences in life long sports. Students eagerness, effort, attendance, and attitude will be evaluated.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
1) The ideal student will be able to understand lifelong sports enough. 2) The ideal students will be able to understand safety enough 3) The ideal students will be able to understand the pleasure of sports enough 4) The ideal students will be able to understand rules of badminton enough 5) The ideal student will be able to understand the rules of tennis enough	1) The ideal student will be able to understand lifelong sports generally. 2) The ideal students will be able to understand safety generally 3) The ideal students will be able to understand the pleasure of sports generally 4) The ideal students will be able to understand the rules of badminton generally 5) The ideal student will be able to understand the rules of tennis generally

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Understand the rules and gameplay of doubles match tennis games	Lecture and demonstration of procedure of class and tennis matches	Report on the rules and components on the doubles match	100
2 /	Practice doubles tennis matches	Games	Games	100
3 /	Practice doubles tennis matches	Games	Games	100
4 /	Practice doubles tennis matches	Games	Games	100
5 /	Practice doubles tennis matches	Games	Games	100
6 /	Understand the rules and equipment in use for singles badminton.	Lecture on badminton singles gameplay	Report on rules and components of singles badminton.	100
7 /	Understand the singles badminton gameplay	Lecture on the singles gameplay	Games	100
8 /	Singles badminton matches	Games	Games	100
9 /	Singles badminton matches	Games	Games	100
10 /	Singles badminton matches	Games	Games	100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Singles badminton matches	Games	Games	100
12 /	Understanding the doubles badminton gameplay and rules	Lecture on doubles badminton	Games	100
13 /	Doubles badminton matches	Games	Games	100
14 /	Doubles badminton matches	Games	Games	100
15 /	Doubles badminton matches	Games	Games	100

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required * Practical	Engineering Design IV A	2	520200	First	Experiment / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	* HAYASHI, Michihiro / MEBUSAYA, Tossa / HAN, Justin	31-126-1		Friday 16:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Product making	Students will: (1) Learn computer program, mechanical design, electrical circuit design. (2) Learn how to propose machine products, network service, robot, etc. (3) Learn how to explain product specification and performance. (4) Learn how to plan for product making.
2	Implementation	
3	Operation	
4	Presentation	
5	Collaboration	

Course Description and Expectations for Students (10.5pt)

This course deal with the process of product making for competitions such as computer programming contests and robot contests and so on.

(1) Understanding the rules of contests
(2) Consideration of the current situation and problems
(3) Determining the methods to solve the problem
(4) Determining the specification of product to solve the problem
(5) Determining the plan for the product making
(6) Explaining the performance of the product

Relationship between this course and business experience

A faculty member who has practical experience in development of automated material handling equipment, for instance, belt-conveyor, vertical lift, sorting system and POS etc.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

It is convenient to obtain licenses for safety, lathes, milling machines, drilling machines, electronic circuit, woodwork, etc., in technical courses provided by Yumekobo.

No.	Program Objectives	Target Abilities for Students (9pt)
①	g,h,i	Be able to understand the rule of computer program and robot contests.
②	a,g,h	Be able to propose the method to solve problem.
③	a,g,h	Be able to determine the specification of product.
④	c,d,f,g	Be able to plan for making product.
⑤	c,d,f	Be able to communicate with other members for making product.
⑥	d,f,g	Be able to explain the product specification and performance.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	5	0	10	0	35
	Ability to think, reason and create	0	0	10	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	0	0	20	0	0	0	20
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Students will be evaluated in report about the method to solve problems, the specification and performance of making product, the plan for making product and so on.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥	✓	
Presentations	①	✓	Students will be evaluated in presentation about making product. This presentation includes poster presentation and slide-show presentation.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students will be evaluated in the evidence of work, for instance, daily and weekly report, discussion notes, idea memos and sketches, meeting record.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Understanding and explaining the rule for computer program and robot contest clearly. (2) Consideration and determining the problem to solve clearly. (3) Planning for making product. (4) Presentation and discussion about the product.	(1) Understanding the rule for computer program and robot contest basically. (2) Determining the problem to solve. (3) Planning for making product. (4) Presentation about the product.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1-2 /	Course introduction	Lecture and Q&A	Confirm the schedule and objectives	60
3-4 /	Understanding the rules	Activity Self-check	Making portfolios	60
5-6 /	Finding and determining the problem	Activity Self-check	Making portfolios	60
7-8 /	Consideration about making product (1)	Activity Self-check	Making portfolios	60
9-10 /	Consideration about making product (2)	Activity Self-check	Making portfolios	60
11-12 /	Consideration about making product (3)	Activity Self-check	Making portfolios	60
13-14 /	Determining the plan for making product	Activity Self-check	Making portfolios	60
15-16 /	Mid-term presentation about the project	Activity Self-check	Making portfolios	60
17-18 /	Consideration about making product (4)	Activity Self-check	Making portfolios	60
19-20 /	Consideration about making product (5)	Activity Self-check	Making portfolios	60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21-22 /	Consideration about making product (6)	Activity Self-check	Making portfolios	60
23-24 /	Determining the specification of product	Activity Self-check	Making portfolios	60
25-26 /	Presentation about the product (1)	Activity Self-check	Making portfolios	60
27-28 /	Presentation about the product (2)	Activity Self-check	Making portfolios	60
29-30 /	Review	Activity Self-check	Making portfolios	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required * Practical	Engineering Design IV B	2	520300	Second	Experiment / Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	* HAYASHI, Michihiro MEBUSAYA, Tossa / HAN, Justin	31-126-1		Friday 16:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Product making	Students will: (1) Learn computer program, mechanical design, electrical circuit design. (2) Learn how to propose machine products, network service, robot, etc. (3) Learn how to explain product specification and performance. (4) Learn how to plan for product making.
2	Implementation	
3	Operation	
4	Presentation	
5	Collaboration	

Course Description and Expectations for Students (10.5pt)

This course deal with the process of product making for competitions such as computer programming contests and robot contests and so on.

(1) Understanding the rules of contests
(2) Consideration of the current situation and problems
(3) Determining the methods to solve the problem
(4) Determining the specification of product to solve the problem
(5) Determining the plan for the product making
(6) Explaining the performance of the product

Relationship between this course and business experience

A faculty member who has practical experience in development of automated material handling equipment, for instance, belt-conveyor, vertical lift, sorting system and POS etc.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

It is convenient to obtain licenses for safety, lathes, milling machines, drilling machines, electronic circuit, woodwork, etc., in technical courses provided by Yumekobo.

No.	Program Objectives	Target Abilities for Students (9pt)
①	g,h,i	Be able to understand the rule of computer program and robot contests.
②	a,g,h	Be able to propose the method to solve problem.
③	a,g,h	Be able to determine the specification of product.
④	c,d,f,g	Be able to plan for making product.
⑤	c,d,f	Be able to communicate with other members for making product.
⑥	d,f,g	Be able to explain the product specification and performance.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	0	40	30	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	0	5	20	10	0	35
	Ability to think, reason and create	0	0	0	5	10	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	0	0	20	0	0	0	20
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①	レ	Students will be evaluated in presentation about making product. This presentation includes poster presentation and slide-show presentation.
	②	レ	
	③	レ	
	④		
	⑤	レ	
	⑥	レ	
Works	①	レ	Students will be evaluated in the product to solve problems. The product includes computer programs, electric circuit, mechanical parts, instruction manuals and so on.
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥	レ	
Portfolios	①	レ	Students will be evaluated in the evidence of work, for instance, daily and weekly report, discussion notes, idea memos and sketches, meeting record.
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Understanding and explaining the rule for computer program and robot contest clearly. (2) Consideration and determining the problem to solve clearly. (3) Planning for making product. (4) Presentation and discussion about the product.	(1) Understanding the rule for computer program and robot contest basically. (2) Determining the problem to solve. (3) Planning for making product. (4) Presentation about the product.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1-2 /	Course introduction	Lecture and Q&A	Confirm the schedule and objectives	60
3-4 /	Planning for making product	Activity Self-check	Making portfolios	60
5-6 /	Making the product (1)	Activity Self-check	Making portfolios	60
7-8 /	Making the product (2)	Activity Self-check	Making portfolios	60
9-10 /	Making the product (3)	Activity Self-check	Making portfolios	60
11-12 /	Making the product (4)	Activity Self-check	Making portfolios	60
13-14 /	Making the product (5)	Activity Self-check	Making portfolios	60
15-16 /	Making the product (6)	Activity Self-check	Making portfolios	60
17-18 /	Making the product (7)	Activity Self-check	Making portfolios	60
19-20 /	Making the product (8)	Activity Self-check	Making portfolios	60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21-22 /	Making the product (9)	Activity Self-check	Making portfolios	60
23-24 /	Making the product (10)	Activity Self-check	Making portfolios	60
25-26 /	Presentation about the product (1)	Activity Self-check	Making portfolios	60
27-28 /	Presentation about the product (2)	Activity Self-check	Making portfolios	60
29-30 /	Review	Activity Self-check	Making portfolios	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Elective	Internship I	1	520700	Intensive	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	ITO, Meguru	Kanazawa C 31.118		

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Career design Engineering skills and knowledge Skills for research Human skills	Students will gain experience related to their chosen field of study and possible future career. The students will not only improve their skills and knowledge, but also make connections between learning and practice, which the students may not experience in their regular classes. Also, the students will develop the autonomy, responsibility, and attitude needed in order for them to become an individual who can make a positive contribution to society.

Course Description and Expectations for Students (10.5pt)

Students will work on a project under the direction of their advisors, based on their chosen field of study.

Advice on taking this class
- Be aware that this is an opportunity given to students by the hosting institutions.
- Follow the directions of advisors and submit all assignments on time.
- Work independently and in groups.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic background information of an accepting lab.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a, h	Students will be able to complete tasks by applying what they have practiced.
②	e, i	Students will be able to understand their strengths and weaknesses better.
③	b, i	Students will be able to have a deeper understanding of their chosen field of studies.
④	b, i	Students will be able to develop a better idea of what they would like to pursue in the future.
⑤	b, i	Students will be able to reflect on what they did and set goals for the future.
⑥	c, d	Students will be able to develop attitudes and abilities needed to work productively with others.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	40	0	10	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	15	0	0	0	0	15
	Ability to think, reason and create	0	0	10	10	0	0	0	20
	Collaboration and leadership	0	0	15	0	0	0	0	15
	Announcement / Expression / Communication	0	0	0	30	0	0	0	30
	Attitude and motivation for learning	0	0	10	0	0	10	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	レ	This evaluation will be made on the evaluation report written by the person in charge of the internship.
	②		
	③	レ	
	④		
	⑤		
	⑥		
Presentations	①	レ	This evaluation will be made by the students' presentation at internship presentation session.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		This evaluation will be made by the report students write.
	②	レ	
	③		
	④	レ	
	⑤	レ	
	⑥	レ	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Lab work	Research		
2 /	Lab work	Research		
3 /	Lab work	Research		
4 /	Lab work	Research		
5 /	Lab work	Research		
6 /	Lab work	Research		
7 /	Lab work	Research		
8 /	Lab work	Research		
9 /	Lab work	Research		
10 /	Lab work	Research		

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Lab work	Research		
12 /	Lab work	Research		
13 /	Preparation for presentation	Making PowerPoint slides		
14 /	Preparation for presentation	Making PowerPoint slides		
15 /	Presentation			

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Elective * Practical	Entrepreneurship	1	520900	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	* MEBUSAYA, Tossa	Kanazawa C		Make an appointment in class

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Entrepreneurship	In this course, we will try to find a framework when we think about entrepreneurship and explain the innovation and entrepreneurship as a focused and systematic discipline. The goal of this course is to capture the ideas that existing businesses and new ventures need to know and do to succeed in today's economy.
2	Innovation	
3	Value Creation	
4	Startups	
5	Business Strategy	

Course Description and Expectations for Students (10.5pt)

We will learn and analyze some examples of businesses and persuading successful stories as "entrepreneurs".
Through lectures and the search for real entrepreneurs, you can establish some simple guidelines to identify and take advantage of opportunities and ideas that come your way.
Students are expected to actively acquire information on a day-to-day basis and be sensitive to changes in the world.

Relationship between this course and business experiences

Based on the teacher's experience in Startups and management in various industries, the teacher will provide discussion materials on the key factors for entrepreneurial success.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: None
Reference books: Innovation and Entrepreneurship, Peter Drucker. Zero To One, Peter Thiel
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students need to have an interest in business development,
and have a certain basic knowledge of marketing and business system.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,i,g	Be able to explain the role of an entrepreneur
②	a,i,g	Know a lot of success stories and why
③	c,g	Understand the challenges and risks involved in starting a new business
④	c,g	Learn about the Startups and various type of entrepreneurship
⑤		
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	30	10	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	25	10	0	0	0	35
	Ability to think, reason and create	0	0	25	10	0	0	0	35
	Collaboration and leadership	0	0	0	0	5	0	5	10
	Announcement / Expression / Communication	0	0	0	10	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	5	0	5	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✔	Write reports of your impressions on the lectures by real entrepreneurs from various industries, and/or write report on your work progress.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Presentations	①	✔	Share the results of your own research and evaluation on startup stories.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Works	①	✔	Group discussion on external lectures.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✔	Students are evaluated based on their learning attitudes and reporting status.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Be able to play the role of an entrepreneur. Know a lot of success stories and the reason for their success. Understand the challenges and risks of starting a new business and know how to deal with them.	Be able to explain the role of an entrepreneur. Know a lot of success stories. Understand the challenges and risks involved in starting a new business.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance About entrepreneur	Lecture Q&A Discussion	Review the handouts. Research & Report	50
2 /	Invention, Innovation, Entrepreneurship and Values	Lecture Q&A Discussion	Review the handouts. Research & Report	50
3 /	Lecture and Case study 1: Entrepreneurship success/failure story and lesson learn – Key success matrixes. Canvas and pitch deck.	Lecture Q&A Discussion	Review the handouts. Research & Report	50
4 /	Mindset : Problems and Validation	Lecture Q&A Discussion	Review the handouts. Research & Report	50
5 /	Mindset : Problems worth solving – Impact, Benefit, Existing solutions	Lecture Q&A Discussion	Review the handouts. Research & Report	50
6 /	Stakeholders, Users, Persona, Markets	Discussion Q&A	Review the handouts. Research & Report	50
7 /	Solutions and Value Proposition. Problem solving model, UX/UI, customers journey	Lecture Q&A Discussion	Review the handouts. Research & Report	50
8 /	Competitors and Unfair-advantages	Lecture Q&A Discussion	Review the handouts. Research & Report	50
9 /	Analytic tools – 5 forces, Pastle, SWOT	Discussion Q&A	Review the handouts. Research & Report	50
10 /	Solution design, story board, customer journey	Lecture Q&A Discussion	Review the handouts. Research & Report	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Users/Customers feedback, validation. Revenue models	Lecture Q&A Discussion	Review the handouts. Research & Report	50
12 /	Investment and funding options, equity, stages	Discussion Q&A	Review the handouts. Research & Report	50
13 /	Pitching and pitch deck	Lecture Q&A Discussion	Review the handouts. Research & Report	50
14 /	Doing business in AI era. IP, Copyright, Trademark.	Lecture Q&A Discussion	Research & Report	50
15 /	Final presentation: Present your own entrepreneurial project	Presentation		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	AI Fundamentals	1	521100	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	POKU, David	KC 31-118-1		9:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Artificial Intelligence	AI (Artificial Intelligence) is a fundamental topic in current society. This course introduces a foundation for responding to the new paradigm of science and technology. Students will be able to learn about the basic contents and perform basic operations in AI. Furthermore, students will be able to make elementary data construction which is necessary for machine learning.
2	Algorithms	
3	Machine learning,	
4	Neural networks	
5	Game theory	

Course Description and Expectations for Students (10.5pt)

This intensive 15-week course provides an in-depth exploration of Artificial Intelligence (AI), delving into its history, current developments, and future prospects. Each week, the course covers a specific aspect of AI, ranging from foundational concepts to advanced applications. The curriculum is structured to sequentially build knowledge, starting with basic principles and gradually moving towards more complex topics such as machine learning, neural networks, search algorithms, Markov Decision Processes, game theory, factor graphs, Bayesian networks, and various forms of logic. The course combines theoretical lectures with practical activities, including hands-on exercises, workshops, project work, and case studies. By the end of the course, students will have gained a comprehensive understanding of AI and its diverse applications

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	15	15	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	5	5	0	10	0	25
	Ability to think, reason and create	0	5	5	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	5	5	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be a quiz in week 4 / 8 / 14 The Evaluation methods will be via multiple-choice quiz Scoring: Assign points according to the answer key. correct answers receive full points, while incorrect or omitted answers receive zero points.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Gain foundational knowledge of AI, its history, and future directions. Understand the basics and advanced concepts of machine learning. Explore various search algorithms and Markov Decision Processes .Delve into game theory and temporal difference learning. Study factor graphs, constraint satisfaction problems, and conditional independence. Grasp the essentials of Bayesian networks and different algorithms used within. Learn about propositional and first-order logic and their applications in Ai Introduce deep learning concepts and their practical applications.	• A solid foundation in critical thinking and problem-solving skills. • The ability to innovate and think creatively in various situations. • Effective communication skills, both in personal and professional contexts.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Week 1: Overview of Artificial Intelligence • Topics: Introduction to AI, history, current state, and future outlook. • Objective: Provide a foundational understanding of AI. • Activities: Lecture, introductory video, discussion.	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
2 /	Week 2: Machine Learning 1 - Linear Classifiers • Topics: Basics of machine learning, introduction to linear classifiers. • Objective: Understand the fundamentals of linear classification in machine learning. • Activities: Lecture, hands-on exercise with linear classifiers.	Activity / Explanation / Report		60
3 /	Week 3: Machine Learning 2 - Features, Neural Networks • Topics: Feature extraction, introduction to neural networks. • Objective: Learn about feature engineering and the basics of neural networks. • Activities: Workshop, project work on feature extraction.	Activity / Explanation / Report		60
4 /	Week 4: Machine Learning 3 - Generalization, K-means • Topics: Generalization in machine learning, introduction to K-means clustering. • Objective: Understand the concepts of generalization and basic clustering techniques. • Activities: Lecture, K-means clustering exercise.	Activity / Explanation / Report	Quiz Report from lesson 1-3 Project review	60
5 /	Week 5: Search 2 - A* • Topics: Advanced search algorithms, focusing on A* algorithm. • Objective: Learn about the A* search algorithm and its applications. Activities: Interactive lecture, practical exercises on A*	Activity / Explanation / Report	Making weekly report	60
6 /	Week 6: Markov Decision Processes 1 - Value Iteration • Topics: Introduction to Markov Decision Processes, value iteration. • Objective: Understand the basics of MDPs and value iteration method. • Activities: Lecture, simulation-based exercises.	Activity / Explanation / Report	Making weekly report	60
7 /	Week 7-8: Markov Decision Processes 2 - Reinforcement Learning • Topics: Basics of reinforcement learning in the context of MDPs. • Objective: Learn about reinforcement learning techniques and applications. • Activities: Workshop, reinforcement learning project.	Activity / Explanation / Report	Making weekly report	60
8 /	Week 7-8: Markov Decision Processes 2 - Reinforcement Learning • Topics: Basics of reinforcement learning in the context of MDPs. • Objective: Learn about reinforcement learning techniques and applications. • Activities: Workshop, reinforcement learning project.	Activity / Explanation / Report	Quiz Report from lesson 1-3 Project review	60
9 /	**Week 9: Game Playing 2 - TD Learning, Game Theory** • Topics: Temporal Difference (TD) Learning, advanced concepts in game theory. • Objective: Explore advanced techniques in AI game playing. • Activities: Lecture, group project on TD learning implementation.	Activity / Explanation / Report		60
10 /	Week 10: Factor Graphs 1 - Constraint Satisfaction Problems • Topics: Introduction to factor graphs, solving constraint satisfaction problems. • Objective: Understand factor graphs and their applications in solving constraints. • Activities: Workshop, hands-on problem-solving session.	Activity / Explanation / Report		60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Week 11: Factor Graphs 2 - Conditional Independence • Topics: Exploring conditional independence using factor graphs. • Objective: Learn about conditional independence in AI modeling. • Activities: Lecture, case study analysis.	Activity / Explanation / Report	Making weekly report	60
12 /	Week 12: Bayesian Networks 2 - Forward-Backward • Topics: Basics of Bayesian networks, Forward-Backward algorithm. • Objective: Understand the Forward-Backward algorithm in Bayesian networks. • Activities: Interactive session, hands-on exercises with Bayesian networks.	Activity / Explanation / Report	Making weekly report	60
13 /	Week 13: Bayesian Networks 3 - Maximum Likelihood • Topics: Maximum likelihood estimation in Bayesian networks. • Objective: Learn about the application of maximum likelihood in Bayesian networks. • Activities: Lecture, practical exercise on likelihood estimation.	Activity / Explanation / Report		60
14 /	Week 14: Logic 1 - Propositional Logic • Topics: Introduction to propositional logic, its syntax, and semantics. • Objective: Understand the basics of propositional logic in AI. • Activities: Lecture, logic-based exercises.	Activity / Explanation / Report	Report from lesson 4-8 Hand in Project Prepare for the presentation and the report	60
15 /	**Week 15: Logic 2 - First-order Logic, Deep Learning, Conclusion** • Topics: First-order logic, introduction to deep learning, course conclusion. • Objective: Explore first-order logic, introduce deep learning, and wrap up the course. • Activities: Final lecture, deep learning demo, course review, final assessment.	Presentation	Presentation	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Integrated Math and Sci. for Engineering I	4	521800	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	YAMAOKA, Hidetaka	Kanazawa C:23.502		Make an appointment in class

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Limit and Continuity	Students will learn: (1) differentiation and its applications. (2) definite and indefinite integrals. (3) exponential functions, logarithmic functions, trigonometric functions, and inverse trigonometric functions. (4) functions expressing the motion of an object.
2	Differentiation and its Applications	
3	Definite and indefinite integrals	
4	Elementary Functions	
5	Function Expressing Motion	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a basic course in integrated mathematics and science for engineering. We will cover the following topics:

1. Functions, their graphs, displacement of graphs, and the limit value and continuity of functions.
2. Differentiation of various functions, and applications of differentiation.
3. Definite and indefinite integrals
4. Expressions of the motion of an object, and their velocity and acceleration.

Extra classes may be held depending the comprehension level of students.
Students are required to review and preview each class. As a matter of particular emphasis, students are required to attempt the exercises after each class.
Extra materials may be distributed if necessary.
Students are required to show their solution/calculation procedure logically and clearly in each assignment.
Students are expected to utilize the Math. and Science Education Research Center or the office hours of the teacher.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Calculus Volume 1, 2, 3 (OpenStax) https://openstax.org/details/books/calculus-volume-1, https://openstax.org/details/books/calculus-volume-2, https://openstax.org/details/books/calculus-volume-3
Reference books: Integrated Math and Science for Engineer (KIT Text)

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic calculation skills of numerical formulas (expansion, factorization, division, and calculation of fractional formula).

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Understand the theory, limits, and continuity of functions and draw graphs of functions.
②	h	Understand the theory of power series expansion and evaluate the integrals of various functions.
③	h	Become proficient with exponential functions and logarithmic functions
④	h	Become proficient with trigonometric functions and inverse trigonometric functions.
⑤	i	Understand the meanings of fundamental English words for mathematics.
⑥	i	Be able to demonstrate an understanding of all topics, attend every class, and do the required work.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	64	16	0	0	0	20	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	20	0	0	0	0	5	25
	Ability to think, reason and create	0	12	8	0	0	0	5	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	16	4	0	0	0	5	25
	Attitude and motivation for learning	0	16	4	0	0	0	5	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quiz 1 will focus on target abilities ①and ⑤.Quiz 2 will focus on target abilities ②and ⑤.In the intermediate quiz, students will be evaluated on target abilities ①, ②, and ⑤. Quiz 3 will focus on target abilities ③and ⑤.Quiz 4 will focus on target abilities ④and ⑤.In the final quiz, students will be evaluated on target abilities from ③to ⑤.The quizzes 1-4 will comprise 6% of the overall evaluation (for a total of 24%) and the intermediate and final quizzes will comprise 20% of the overall evaluation (for a total of 40%).
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Students will be evaluated on the integrated subject (16%). Students are expected to display logical thinking in their report. Students are required to show their solution/calculation procedure logically and are not allowed to copy from others. The subject and the report deadline will be announced by the teacher.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		Students will be evaluated on homework, exercises, preparation, and review, which together will comprise 20% of the overall evaluation. Attendance and attitude in class are included in this category. Students are expected to utilize the Math. and Science Education Research Center or the office hours of the teacher if they have any questions.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Accurately draw graphs of basic functions. (2) Accurately explain the limit and continuity of a function. (3) Accurately calculate exponential, logarithmic, trigonometric, and inverse trigonometric functions. (4) Fully understand the theory of differentiation. (5) Accurately calculate power series expansion and evaluate the integrals of various functions. (6) Accurately explain the motion of an object using the appropriate function. (7) Demonstrate an understanding of all topics and complete all homework.	(1) Draw graphs of basic functions. (2) Explain the limit and continuity of a function. (3) Calculate exponential, logarithmic, trigonometric, and inverse trigonometric functions. (4) Understand the theory of differentiation. (5) Calculate power series expansion and evaluate the integrals of various functions. (6) Explain the motion of an object using an appropriate function. (7) Demonstrate an understanding of all topics and complete all homework.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Functions	Instruction Lecture and exercise	Understand the objectives of the class Rev.: Definition of function Prev.: Graph of a function	30 100 70
2 /	Graph of a function Elementary functions	Lecture and exercise	Self-study: Elementary functions Rev.: Odd and even functions Prev.: Translation of graph	50 100 50
3 /	Displacement of a graph Inverse functions	Lecture and exercise	Self-study: Graph of an inverse function Rev.: Displacement of a graph Prev.: Limit value of a function	50 100 50
4 /	Limit value of a function Continuity of a function	Lecture and exercise	Self-study: Gauss symbol Rev.: Asymptote of a function Prev.: Shape of graph	50 100 50
5 /	Differential coefficients and Derivatives Characteristics of derivative functions	Lecture and exercise	Self-study: Derivative functions Rev.: Tangent and normal lines Prev.: Increase and decrease, and extreme value	50 100 50
6 /	Increase and decrease of functions	Lecture and exercise	Self-study: Increase and decrease Rev.: Increase and decrease Prev.: Quiz 1	50 50 100
7 /	Quiz 1 Higher order derivatives and their application	Quiz Lecture and exercise	Self-study: l'Hospital's theorem Rev.: Quiz 1 Prev.: Taylor's theorem and expansion	50 100 50
8 /	Taylor's theorem and Maclaurin's expansion	Lecture and exercise Return quiz results Self-check	Self-study: Maclaurin's expansion Rev.: Power series expansion Prev.: Power series expansion Self-check: Self-reflection	50 90 40 20
9 /	Power series expansions of various functions n-th order approximation of function	Lecture and exercise	Self-study: Maclaurin's expansion Rev.: Approximation Prev.: Sequences and sigma (summation) notation	50 100 50
10 /	Riemann sums	Lecture and exercise	Self-study: Sigma (summation) formula Rev.: Riemann sums Prev.: Primitive functions	50 100 50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Definite integrals Fundamental theorem of calculus	Lecture and exercise	Self-study: Various indefinite integrals Rev.: Exercises on integration Prev.: Indefinite integrals	50 100 50
12 /	Review of integrals	Lecture and exercise	Self-study: Indefinite integrals Rev.: Exercises on integration Prev.: Quiz 2	50 50 100
13 /	Quiz 2 Function expressing of motion [Integrated subject]	Quiz Lecture and exercise	Self-study: Velocity and acceleration Rev.: Quiz 2 Prev.: Law of motion	50 100 50
14 /	Displacement, velocity, and acceleration	Lecture and exercise Return quiz results Self-check	Exercises of integrated subject Prev.: Class contents of #1-#12 Self-check: Self-reflection	120 60 20
15 /	Review of first half	Exercises for #1-#12	Review: Class contents of #1-#12	200
16 /	Intermediate quiz Composite functions	Intermediate quiz Lecture and exercise	Self-study: Composite func. Rev.: Intermediate quiz, Confirmation of submission, attendance Prev.: Derivatives of composite functions	50 100 50
17 /	Review of intermediate quiz Derivatives of composite functions	Return intermediate quiz results and reports on integrated subject Self-check of first half Lecture and exercise	Self-study: Exercises on derivatives Rev.: Various derivatives Prev.: Polynomial function Self-check: Int.med. quiz	50 80 50 20
18 /	Power functions	Lecture and exercise	Self-study: Standard type of function Rev.: Graph of an irrational function Prev.: Laws of exponents	50 100 50
19 /	Exponential functions	Lecture and exercise	Self-study: Calculation of exponential functions Rev.: Graph of an exponential function Prev.: Calc. of a logarithm	50 100 50
20 /	Logarithmic functions	Lecture and exercise	Self-study: Logarithm law, change-of-base formula Rev.: Exponential equations and inequalities Prev.: Derivatives of exponent. & log. functions	50 100 50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Derivatives of exponential and logarithmic functions Logarithmic differentiation	Lecture and exercise	Self-study: Exercises on derivatives Rev.: Log. differentiation Prev.: Quiz 3	50 50 100
22 /	Quiz 3 Trigonometric functions	Quiz Lecture and exercise	Self-study: Radian method, a trigonometric function Rev.: Quiz 3 Prev.: Def. of an inverse trigonometric function	50 100 50
23 /	Inverse trigonometric functions	Lecture and exercise Return quiz results Self-check	Self-study: An inverse trigonometric function Rev.: Graph of an inverse trigonometric function Prev.: Relationships among trigonometric functions Self-check: Self-reflection	50 80 50 20
24 /	r-alpha method of trigonometric functions	Lecture and exercise	Self-study: Trigonometric addition formulas Rev.: r-alpha method Prev.: Derivatives of trigonometric function	50 100 50
25 /	Derivatives of inverse trigonometric functions	Lecture and exercise	Self-study: Exercises on derivatives Rev.: Derivatives of inverse trigonometric functions Prev.: Quiz 4	50 100 50
26 /	Quiz 4 Derivatives of inverse functions Derivatives of functions using parameters	Quiz Lecture and exercise	Self-study: Derivative of function using parameter Rev.: Quiz 4 Prev.: Class contents of #16-#26	50 100 50
27 /	Review of second half	Exercises of #16-#26 Return quiz results Self-check	Rev.: Class contents of #16-#26 Self-check: Self-reflection	180 20
28 /	Final quiz Velocity and acceleration of various motion [Integrated subject]	Final quiz Lecture and exercise	Exercises of integrated subject Prev.: Integrated subject	150 50
29 /	Velocity and acceleration of various motion [Integrated subject]	Lecture and exercise	Exercises of integrated subject Self-check: Confirmation of submission, attendance	150 50
30 /	Review of final quiz Self-check	Review of final quiz Return final quiz results and reports on integrated subject Self-check Questionnaire	Rev.: Final quiz Self-check: Self-reflection	100 100

2024 Syllabus

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Integrated Math and Sci. for Engineering II	4	521900	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	TANAKA, Yasuhiro / EVANS, Davis	Kanazawa C: 23.502		Make an appointment in class

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Newton's laws of motion	Students will be able to: (1) learn how to describe various motions using Newton's laws of motion. (2) learn equations of motion as an application of integrals. (3) learn line integrals and works. (4) learn moments of force, center of gravity, and moments of inertia.
2	Differential equations	
3	Line integrals and works	
4	Center of gravity	
5	Moments of inertia	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a basic course in integrated mathematics and science for engineering. We will cover the following topics:
1. Displacement, velocity, acceleration, Newton's laws of motion, and description of various motions.
2. 1st-order differential equations, 2nd-order linear differential equations, equations of motion and mechanics.
3. Line integrals and works.
4. Areas between two curves, multiple integrals, volume of a solid, center of gravity, and moments of inertia.
Students are required to review and preview each class.
Extra materials may be distributed if necessary.
Students are required to show their procedure for solution/calculation logically and clearly in each assignment.
Students are expected to utilize the Math. and Science Education Research Center or the office hours of the instructors.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Calculus Volume 1, 2, 3 (OpenStax) (license: CC BY-NC-SA) https://openstax.org/details/books/calculus-volume-1, https://openstax.org/details/books/calculus-volume-2, https://openstax.org/details/books/calculus-volume-3
Reference books: Integrated Math and Science for Engineering II, Integrated Math and Science for Engineering I

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Skills and knowledge from the Integrated Mathematics and Science for Engineering I.
Knowledge of exponential functions, logarithmic functions, and trigonometric functions.
Basic calculation skills for differentiation and integration.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Describe equations of motion for simple motions of an object using Newton's laws of motion.
②	h	Solve separable, 1st-order linear and 2nd-order, linear, homogeneous differential equations.
③	h	Understand the concept of line integrals and find the works.
④	h	Evaluate the areas between two curves, the volumes of a solid, moments of inertia, and the center of gravity for a solid.
⑤	i	Understand the meanings of fundamental English words for mathematics.
⑥	i	Be able to demonstrate an understanding of all topics, attend every class, and do the required works.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	64	16	0	0	0	20	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	20	0	0	0	0	5	25
	Ability to think, reason and create	0	12	8	0	0	0	5	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	16	4	0	0	0	5	25
	Attitude and motivation for learning	0	16	4	0	0	0	5	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Quiz 1 will focus on target ability ①. Quiz 2 will focus on target ability ②. In the intermediate quiz, students will be evaluated on target abilities ① and ② (20% of the overall evaluation). Quiz 3 will focus on target ability ③. Quiz 4 will focus on target abilities ④ and ⑤. In the final quiz, students will be evaluated on target abilities from ③ to ⑤ (20% of the overall evaluation). Each quiz will comprise 6% of the overall evaluation (for a total of 24%).
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Students will be evaluated on their reports (16%). Students are expected to show their logical thinking in the assignments. Students are required to show their procedures for solutions/calculation logically and are not allowed to copy from others. The deadline for reports will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		Students will be evaluated on assignments, exercises, preparation, and review. All of them will comprise 20% of the overall evaluation. Attendance and attitude in class are included in this category, too. (Students are expected to utilize the Math. and Science Education Research Center or the office hours of the instructors if they have any questions.)
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Fully describe equations of motion for a given motion of an object using Newton's laws of motion. (2) Fully understand the equations of motion and accurately solve separable, 1st-order linear and 2nd-order, linear, homogeneous differential equations. (3) Accurately evaluate line integrals, and find the works. (4) Accurately evaluate areas and volumes using definite integrals and find the center of gravity. (5) Fully understand multiple integrals and accurately find the moments of inertia. (6) Demonstrate an understanding of all topics and complete all assignments.	(1) Describe equations of motion for a given motion of an object using Newton's laws of motion. (2) Understand the equations of motion, and solve separable, 1st-order linear and 2nd-order, linear, homogeneous differential equations. (3) Evaluate line integrals and find the works. (4) Evaluate areas and volumes using definite integrals and find the center of gravity. (5) Understand multiple integrals and find the moments of inertia. (6) Demonstrate an understanding of all topics and complete all assignments.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Displacement, velocity, and acceleration	Instruction Lecture and exercise	Understand the course objectives. Rev.: Displacement, velocity, and acceleration Prev.: Motion in one dimension	200
2 /	Motion in one dimension Motion in two dimension: Projectile motion	Lecture and exercise	Self-study: Review of differentiation Rev.: Displacement, velocity, and acceleration Prev.: Newton’s laws of motion	200
3 /	Motion in two dimension: Circular motion Newton’s laws of motion	Lecture and exercise	Self-study: Review of differentiation Rev.: Various motions Prev.: Applications of Newton’s laws of motion	200
4 /	Newton’s laws of motion Applications of Newton’s laws of motion	Lecture and exercise	Self-study: Review of integration Rev.: Newton’s laws of motion Prev.: Applications of Newton’s laws of motion	200
5 /	Applications of Newton’s laws of motion Motion with force of friction	Lecture and exercise	Self-study: Review of integration Rev.: Various motions Prev.: Review of introductory mechanics	200
6 /	Review of introductory mechanics	Lecture and exercise	Rev.: Introductory mechanics Prev.: Quiz 1	200
7 /	Quiz 1 Taylor series and Maclaurin series Euler’s formula	Quiz Lecture and exercise	Self-study: Taylor series Rev.: Quiz 1 Prev.: Simple, 1st-order differential equations	200
8 /	Simple, 1st-order differential equations	Lecture and exercise Result announcement of quiz 1 Self-check	Self-study: Simple, 1st-order differential equations Rev.: Taylor series Prev.: Separable, 1st-order differential equations	200
9 /	Separable, 1st-order differential equations	Lecture and exercise	Self-study: Separable differential equations Rev.: Solution to differential equations Prev.: 1st-order linear differential equations	200
10 /	1st-order linear differential equations	Lecture and exercise	Self-study: Solution curve group Rev.: 1st-order linear differential equations Prev.: 2nd-order, linear, differential equations	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	2nd-order, linear, homogeneous differential equations	Lecture and exercise	Self-study: Solutions to quadratic equations and complex numbers Rev.: 2nd-order, linear, homogeneous differential equations	200
12 /	Review of differential equations	Lecture and exercise	Rev.: Various differential equations Prev.: Quiz 2	200
13 /	Quiz 2 [Report 1] Significant digit, Scientific notation Application of differential equations to engineering	Quiz Lecture and exercise	Self-study: Review of integrals and differential equations Rev.: Quiz 2 Prev.: Report 1	200
14 /	[Report 1] Application of differential equations to engineering Review of the first half	Lecture and exercise Exercises on #1-#13 Result announcement of quiz 2 Self-check	Self-study: Report 1 Rev.: Class contents of #1-#13	200
15 /	Intermediate quiz Arc length of a curve and line integrals	Intermediate quiz Result announcement of report 1 Self-check	Self-study: Arc length of a curve and line integrals Rev.: Intermediate quiz Self-check; Confirmation of submission, attendance Prev.: Works and powers	200
16 /	Works and powers Self-check	Lecture and exercise Result announcement of intermediate quiz Self-check of the first half	Self-study: Dot product of two vectors Rev.: Works and powers Prev.: Various integrals	200
17 /	Review: Arc length of a curve, line integrals, and works	Lecture and exercise	Rev.: Various integrals Prev.: Quiz 3	200
18 /	Quiz 3 Moments of force Center of gravity of point masses	Quiz Lecture and exercise	Self-study: Various integrals Rev.: Center of gravity of point masses, quiz 3 Prev.: Areas between two curves	200
19 /	Areas between two curves The center of gravity of a thin plate	Lecture and exercise Result announcement of quiz 3 Self-check	Self-study: Various integrals Rev.: The center of gravity of a thin plate Prev.: Multiple integrals and iterated integral	200
20 /	Multiple integrals and iterated integral	Lecture and exercise	Self-study: Various integrals Rev.: Multiple integrals and iterated integral Prev.: Volume of a solid and its center of gravity	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Volume of a solid and its center of gravity	Lecture and exercise	Self-study: Polar coordinates Rev.: Multiple integrals and iterated integral Prev.: Volume of a solid of revolution	200
22 /	Volume of a solid of revolution and its center of gravity	Lecture and exercise	Self-study: a solid of revolution Rev.: Volume of a solid of revolution and its center of gravity Prev.: Moments of inertia	200
23 /	Moments of inertia	Lecture and exercise	Self-study: Density Rev.: Moments of inertia Prev.: Various multiple integrals	200
24 /	Review of multiple integrals	Lecture and exercise	Self-study: Various integrals Rev.: Multiple integrals Prev.: Quiz 4	200
25 /	Quiz 4 [Report 2] Moments of inertia	Lecture and exercise Quiz	Self-study: Report 2 Rev.: Quiz 4	200
26 /	[Report 2] Moments of inertia	Lecture and exercise Result announcement of quiz 4	Self-study: Report 2 Rev.: Quiz 4	200
27 /	[Report 2] Moments of inertia Review of the second half	Lecture and exercise	Self-study: Report 2 Rev.: Class contents of #15-#27 Prev.: Final quiz	200
28 /	Review of the second half	Exercises on #15-#27 Result announcement of report 2 Self-check	Rev.: Class contents of #15-#27, report 2 Prev.: Final quiz	200
29 /	Review of the report 2 Final quiz	Lecture Final quiz	Rev.: Final quiz Self-check: Confirmation of submission, attendance	200
30 /	Review of the final quiz Self-check	Review of the final quiz Result announcement of the final quiz Self-check Questionnaire	Rev.: Final quiz	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Applied Mathematics I	2	522100	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	WATANABE, Shuji	Kanazawa C: 23.403		Make an appointment in class

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Vectors and Scalars	Students will learn: (1) vector operations. (2) to represent lines and planes using vectors. (3) matrix operations. (4) to represent linear transformations of a plane or a space.
2	Dot product, Cross product	
3	Lines and Planes	
4	Linear transformation	
5	Coordinate transformation	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students must have 30 50-minute self-study times for 15 50-minute classes.
This is a basic course in linear algebra. We will cover the following topics:

1. Vectors
   - 1.1 Vectors and their operations
   - 1.2 Dot products and cross products of vectors
   - 1.3 The equation of a plane or a line
2. Matrices and linear maps
   - 2.1 Matrices and their operations
   - 2.2 Linear maps and linear transformations
   - 2.3 Various coordinate systems

Classes include exercises and quizzes; a final quiz will be given at the end of the semester.
Daily preparation and review are important. Students are required to complete the designated tasks.
Students should prepare reports and study research topics in a planned manner and strictly avoid plagiarism.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Vector Calculus (license: CC BY)
(http://www.mecmath.net/VectorCalculus.pdf)
A First Course in Linear Algebra, K. Kuttler (license: CC BY)
(https://lila1.lyryx.com/textbooks/KUTTLER_1/marketing/Kuttler-LinearAlgebra-AFirstCourse-2021A.pdf)
Reference books: None
Reserved books: None

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Represent situations by mathematical expressions.
②	h	Understand the concept of vectors and be able to properly perform vector operations.
③	h	Understand the concept of matrices and be able to properly perform matrix operations.
④	h	Understand the concept of linear transformations and be able to represent them in matrix form.
⑤	h, i	Understand the contents of the course and be able to complete the required tasks by the announced deadlines.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	15	0	0	0	25	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	40	0	0	0	0	15	55
	Ability to think, reason and create	0	20	10	0	0	0	5	35
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	0	0	5	10
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be four quizzes. The 1st, 2nd, and 3rd quizzes will comprise 10% of the overall evaluation, and the final quiz will comprise 30%. The final quiz will be given at the end of the semester to assess the degree of student achievement.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Reports	①	✓	Three reports will be assigned and comprise 15% of the overall evaluation.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		An assessment of the results of the exercises and homework during the class will comprise 25% of the overall evaluation.
	②		
	③		
	④		
	⑤	✓	
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Properly perform vector operations and find the equations of planes, lines, or curves. (2) Understand the concept of linear maps and properly determine representation matrices. (3) Understand coordinate transformations and represent vectors in various coordinate systems.	(1) Properly perform vector operations. (2) Properly perform matrix operations. (3) Find representation matrices of linear transformations in a plane. (4) Able to perform coordinate transformation

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course Introduction Space and Vectors Vector operations 1 1) Addition of vectors 2) subtraction of vectors 3) scalar multiplication of vectors	Lecture and exercises	Understand the objectives of the course Review materials from the previous course Preview for Dot product	200
2 /	Unit vector and basis vector Vector operations 2 1) Dot product 2) Cross product	Lecture and exercises	Review materials from the last class Preview for dot products and cross products	200
3 /	Applications of inner and cross products 1) Angle between two vectors 2) Area of parallelograms and triangles 3) The volume of a parallelepiped	Lecture and exercises	Review materials from the last class Preview for equation of lines and the quiz	200
4 /	Quiz (1) Equations of lines The intersection of two lines	Quiz on the contents of #1-#3 Lecture and exercises	Review materials from the last class Preview for equations of lines	200
5 /	Equations of planes The intersection of a line and a plane The intersection line of two planes	Lecture and exercises Return quiz results Self-check	Review materials from the last class Preview for equations of planes	200
6 /	Distance between a point and a line Distance between a point and a plane	Lecture and exercises	Review materials from the last class Preview for intersection and intersection line	200
7 /	Curves and surfaces 1) spherical surface 2) cylindrical surface	Lecture and exercises	Review materials from the last class Preview for matrix operations and the quiz	200
8 /	Quiz (2) Matrix operations: 1) Addition, Scalar multiplication 2) Multiplication of matrices 3) Inverse matrices	Quiz on contents of # 4 - # 7 Lecture and exercises	Review row reduction Preview for multiplication of matrices	200
9 /	Linear transformation Matrix representation of linear transformation	Lecture and exercises Return quiz results Self-check	Review materials from the last class Preview for linear maps and linear transformations	200
10 /	Compositions of linear transformations Inverse transformations	Lecture and exercises	Review materials from the last class Preview for compositions of linear transformations and inverse transformations	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Oblique coordinate system Curvilinear Coordinates	Lecture and exercises	Review materials from the last class Preview for the quiz	200
12 /	Quiz (3) Integrated subject: Affine Transformation	Quiz on contents of # 8 - # 11 Lecture and exercises	Review materials from the last class Preview for mean, variance, covariance, and correlation coefficient	200
13 /	Integrated subject: Gram–Schmidt orthonormalization Review for the final quiz	Lecture and exercises Return quiz (3) results Self-check Self-study / Q&A	Preview for the quiz	200
14 /	Final quiz	Quiz on contents of # 1 - # 11 Self-study / Q&A		200
15 /	Final quiz return Self-check	Return final quiz results and reports on integrated subject		200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Applied Mathematics II	2	522200	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	NAKAGAWA, Hayato / HUSSIEN, Alaa	Kanazawa C: 23.403		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Vectors and matrices	Students will learn: (1) Vector operations and matrix operations. (2) Solving systems of linear equations using "row reduction." (3) The properties of a determinant and a method to calculate determinants. (4) Eigenvalues and eigenvectors (5) Class management and a special lecture will be given in cooperation with local residents and companies.
2	Row reduction	
3	Determinants	
4	Eigenvalues and eigenvectors	
5	Regional cooperation	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.
This is a basic course in applied mathematics, continued from "Applied Mathematics I." We will cover the following topics:

1. Vectors and Matrices
2. Systems of linear equations and row reduction
3. Linear transformation
4. Determinants
5. Linearly independence
6. Eigenvalues and eigenvectors

Classes include exercises and quizzes.
Daily preparation and review are important. Students are required to complete the designated tasks.
Students should prepare reports and study research topics in a planned manner, and strictly avoid plagiarism.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: A First Course in Linear Algebra, K. Kuttler
(https://lila1.lyryx.com/textbooks/KUTTLER_1/marketing/Kuttler-LinearAlgebra-AFirstCourse-2023A.pdf)
Reference books: Linear Algebra (KIT Mathematics, Science, Data Science and AI Programs)

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students should understand the concepts introduced in "Applied Mathematics I".
Basic computational skills for mathematical expressions (calculation of literal expressions, linear and quadratic equations, trigonometric functions) and knowledge of coordinate planes.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Understand the concept of vectors and matrices, and be able to properly perform operations.
②	h	Understand the concept of systems of linear equations by using row reduction.
③	h	Understand the properties of determinants and be able to calculate the value of a determinant.
④	h	Understand the concept of linear transformations and be able to find the eigenvalues and eigenvectors.
⑤	i	Understand the meanings of fundamental English words for mathematics.
⑥	i	Understand the contents of the course and be able to complete the required tasks by the announced deadlines.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	15	0	0	0	25	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	35	0	0	0	0	15	50
	Ability to think, reason and create	0	25	10	0	0	0	0	35
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	0	0	0	0	10	10

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be three quizzes. Each of the 1st and 2nd quiz will comprise 15% of the overall evaluation, and the final quiz will comprise 30% (for a total of 30+30%). The final quiz will be given at the end of the semester to assess the degree of student achievement.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Several reports will be assigned and will together comprise 10% of the overall evaluation. An integrated subject will comprise 5% of the overall evaluation.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		An assessment of the results of the exercises and homework during the class will comprise 25% of the overall evaluation.
	②		
	③		
	④		
	⑤		
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
・Perform properly vector operations and matrix operations. ・Solve “complex” linear systems using row reduction. ・Understand the concept of linear transformations and properly determine representation matrices. ・Understand the definition and properties of determinants and be able to calculate determinants. ・Understand the properties of cofactors and find inverse matrices. ・Find the eigenvalues and eigenvectors of matrices and apply them to diagonalization.	・Perform vector operations and matrix operations. ・Solve “fundamental” linear systems using row reduction. ・Find representation matrices of linear transformations in a plane. ・Understand the properties of determinants and be able to calculate determinants. ・Find inverse matrices using cofactors. ・Find the eigenvalues and eigenvectors of simple matrices.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Vectors and vector operations (Addition, Subtraction, Scalar multiplication)	Lecture and exercises	Understand the objectives of class Review materials from the previous course Prepare for next class	200
2 /	Matrices and matrix operations (Addition, Subtraction, Scalar multiplication, Matrix multiplication) Square matrices	Lecture and exercises	Review materials from the previous course Prepare for next class	200
3 /	Inverse matrices Row reduction	Lecture and exercises	Review materials from the previous course Prepare for next class	200
4 /	Inverse matrices of order 3	Lecture and exercises	Review materials from the previous course Prepare for next class	200
5 /	Quiz (1) Definition of liner transformation and representation matrix	Quiz on the contents of #1 - #4 Lecture and exercises	Review materials from the previous course Prepare for next class	200
6 /	Compositions of linear transformations Inverse transformations	Lecture and exercises Return quiz results Self-check	Review materials from the previous course Prepare for next class	200
7 /	Definition of determinant Calculation of determinants of order 2 and 3	Lecture and exercises	Review materials from the previous course Prepare for next class	200
8 /	Calculation method of determinants based on the properties of determinants	Lecture and exercises	Review materials from the previous course Prepare for next class	200
9 /	Cofactor expansion and its applications	Lecture and exercises	Review materials from the previous course Prepare for next class	200
10 /	Quiz (2) Dot products of vectors Cross products of 3-dim vectors	Quiz on the contents of #5 - #9 Lecture and exercises	Review materials from the previous course Prepare for next class	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Linear independence, Linear dependence of vectors	Lecture and exercises Return quiz results Self-check	Review materials from the previous course Prepare for next class	200
12 /	Eigenvalues and eigenvectors	Lecture and exercises	Review materials from the previous course Prepare for next class	200
13 /	Diagonalization and its applications Review	Lecture and exercises	Review materials from the previous course. Study for the final quiz	200
14 /	Review Final quiz	Review Quiz on contents of #1 - #13	Study for the final quiz Review of this class	200
15 /	Review the final quiz Self-check	Review the final quiz Self-check	Review: Final quiz	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Machining	2	540100	First	Experiment / Practice Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	HAYASHI, Michihiro / WOHLFARTH, Brandon	31-126-1		Friday 16:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Machining methods	Students will: (1) Learn functions and structures of various machine tools. (2) Learn how to manufacture the parts with the machine tools. (3) Learn how to select an advantageous machining method within the requirements using basic production manufacturing technology.
2	Machine tools	
3	Manufacturing	
4	Evaluation methods of machine parts	
5	Collaboration	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

This course deal with the basics of fundamental machining methods and understanding the function and structure of various machine tools. It also aims to improve both machining and designing skills for manufacturing specific parts.

(1) Outline of manufacturing technology
(2) Milling operations
(3) Turning operations
(4) Drilling operations
(5) Grinding operations
(6) Measurement methods and quality control
(7) Production processes

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

It is essential to obtain licenses for lathes, milling machines, drilling machines, etc., in technical courses provided by Yumekobo.

No.	Program Objectives	Target Abilities for Students (9pt)
①	d,g,h	Be able to manufacture designed parts by using machine tools.
②	g,h	Be able to understand the functions and structures of various machine tools.
③	a,b,h	Be able to understand basic manufacturing methods.
④	g,h	Be able to select an advantageous processing method with enough accuracy.
⑤	d,h	Be able to understand measurement methods to verify the required accuracy.
⑥	b,d,h	Be able to understand the positioning of machining technology in manufacturing.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		50	30	0	0	10	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	20	0	0	0	0	0	40
	Ability to think, reason and create	30	10	0	0	5	0	0	45
	Collaboration and leadership	0	0	0	0	5	0	0	5
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	0	0	0	0	5	5

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		There is an exam at the end of the semester to evaluate the degree of achievement.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Quizzes	①		There are tests when each chapter is finished to evaluate the level of understanding. The quizzes on the following five chapters, 1) Basics of manufacturing, 2) Milling operations, 3) Turning operations, 4) Drilling operations, 5) Grinding operations.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	∠	Students will be evaluated on the execution plan of the design and function of the final product.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	∠	Students will be evaluated their contributions within the class.
	②		
	③		
	④	∠	
	⑤		
	⑥	∠	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Designed parts can be accurately shaped by using machine tools. (2) Fully understand the functions and structures of various machine tools. (3) Explain the basic manufacturing methods and their contents correctly. (4) An advantageous manufacturing method can be selected to realize the accuracy required on the drawing. (5) Explain the measurement method to accurately verify the accuracy required on the drawing.	(1) Designed parts can be shaped by using machine tools. (2) Understand the functions and structures of various machine tools. (3) Explain the basic manufacturing methods and their contents. (4) An advantageous manufacturing method can be selected which achieves the required accuracy on the drawing. (5) Explain the measurement method to verify the required accuracy on the drawing.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction	Lecture and Q&A Self-check	Understand the course objectives Confirm the course schedule	100 100
2 /	Basics of metal cutting	Lecture and Q&A Self-check	Yumekobo safety license	200
3 /	Basics of milling Structure of the milling machine and the milling operation	Lecture and Q&A Self-check	Yumekobo milling license	200
4 /	Application of milling Mechanism of machine center, control of CNC machine tool	Lecture and Q&A Self-check	Practice of milling machine	200
5 /	Basics of turning Structure of the universal lathes and the turning operation	Quiz Lecture and Q&A Self-check	Yumekobo lathe license	200
6 /	Application of turning Mechanism of turn center, control of CNC lathe	Lecture and Q&A Self-check	Practice of lathe	200
7 /	Basics of drilling Structure of the drilling presses and the drilling operation	Quiz Lecture and Q&A Self-check	Yumekobo drill press license	200
8 /	Mechanism of drilling	Lecture and Q&A Self-check	Practice drill press	200
9 /	Basics of grinding Structure of the grinding machine and the grinding operation	Quiz Lecture and Q&A Self-check	Yumekobo electric and electronic license	200
10 /	Application of grinding Mechanism of the grinding process and characteristics of the whetstone	Lecture and Q&A Self-check	Yumekobo wood working license	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Finishing surface accuracy	Quiz Lecture and Q&A Self-check	Practice how to use the file, whetstone and grinding wheel	200
12 /	Measurement methods and quality control of workpiece	Lecture and Q&A Self-check	Practice how to use the caliper and micrometer	200
13 /	Design the machine part manufactured by using milling, turning and drilling machine	Lecture and practice Self-check	Finish drawing of the part	200
14 /	Manufacture the part designed in class 13	Lecture and practice Self-check	Finish manufacturing of the part	200
15 /	Report about the part designed and manufactured in class 13 and 14	Lecture and practice Self-check	Preview: Confirm the manufactured part Review: Writing report of the manufactured part	20 180
16 /	Final examination	Descriptive test	Self-evaluation	
17 /	Review	Self-check & review		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Technical Drawing	2	541200	First	Exercises Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	HAYASHI, Michihiro / EVANS, Davis	31-126-1		Fri.16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Orthographic projection method	Students will: (1) learn the principles of orthographic projection, which is the basis of mechanical drawing. (2) learn the ability to accurately create 2D drawings according to the third angle projection method. (3) practice handwritten drafting and CAD to create drawings efficiently.
2	Isometric projection	
3	Basics of design and drafting	
4	Handwritten drafting and CAD	
5	Size tolerance	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes. Mechanical drawings are the most important basic means of communication for mechanical engineers to accurately convey their ideas. Machine drawing information includes not only the shape and dimensions of parts, but also the "dimensional accuracy", "shape accuracy", and "position/posture accuracy" required for each functional form that makes up the part to perform its functions. It teaches the orthographic projection method, which is the basis of mechanical drafting, and the creation of 2D mechanical drawings.

We will cover the following topics:
1. Guidance on how to conduct lessons
2. Isometric projection and cabinet projection drawing
3. Orthographic projection and 2D drafting, and basic drafting rules for mechanical drawings
4. Hand-drawn of mechanical part drawing exercises
5. Functions of CAD, and drawing creation procedures
6. Size tolerance and fit

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: New JIS Mechanical Drawing (5th edition), Morita Kita Publishing, ISBN 978-4-627-66115-8
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Lectures are "stacked" learning (work on new subjects is based on the knowledge and abilities acquired in the previous week's class). Therefore, students should review the material in the weekly lectures thoroughly and fully understand it by the next lecture.

No.	Program Objectives	Target Abilities for Students (9pt)
①	e,g,i	Be able to understand the principles of orthographic projection and express the shape of machine parts.
②	e,g,i	Be able to understand the basic drafting rules for mechanical drawings and draw drawings.
③	e,g,i	Be able to draw front, top, and side views of machine parts.
④	e,g,i	Be able to draw 3D drawings using isometric projection and cabinet projection drawings.
⑤	e,g,i	Be able to sketch mechanical parts accurately and create hand-drawn mechanical drawings based on these sketches.
⑥	e,g,i	Be able to create machine drawings using CAD figure creation and figure editing functions.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		20	20	60	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	10	15	0	0	0	0	35
	Ability to think, reason and create	5	5	15	0	0	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	5	5	15	0	0	0	0	25
	Attitude and motivation for learning	0	0	15	0	0	0	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	In the final exam, the degree of comprehension of “principles of orthographic projection”, “fit”, “creation of mechanical drafting (practical method)”, etc., is evaluated.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	In the mid-term test, the degree of comprehension of “drafting rules for mechanical drawings”, “third-angle projection drawing”, “isometric projection drawing”, “dimensions”, “size tolerance”, etc., is evaluated.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Evaluate each assignment (classwork and homework). The purpose of the assignment is to ensure that the understanding and application skills of the lesson content are established. Please manage the due date sufficiently. In particular, ensure sufficient time and work systematically. You will not be able to complete the assignments if you rush to complete them once the submission date is approaching.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Accurately understand the third trigonometric method and basic drafting rules used for machine drafting. (2) Accurately understand the basic line types used in machine drawings and their roles. (3) Select the necessary projections by analyzing the geometric features of parts and determine the main projections appropriately. (4) Sketch machine parts accurately, and create hand-drawings based on the sketches. (5) Understand the size tolerances and surface roughness of machine parts and accurately indicate them in drawings.	(1) Understand the trigonometry and basic drawing rules used to create mechanical drawings. (2) Accurately understand the basic line types used in machine drawings and their roles. (3) Select a necessary projection by analyzing the shape characteristics of a part and determine a main projection. (4) Sketch mechanical parts and make hand-drawn 2D mechanical drawings based on these sketches. (5) Understand the size tolerances of machine parts, the size tolerances of surface roughness products, and the surface roughness, and indicate them in drawings.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	[Guidance on class implementation] [Reviewing of mechanical drawing] [Mechanical drawing standards] [Lines]	(1) Explain the outline of this course. Understand the relationship between this course and the learning objectives of the department. (2) Recognize the information shown in the mechanical drawing by looking at the drawing example. (3) Lecture the types of standards established to standardize the industry in general. (4) Preparation and use of drafting tools. (5) Lecture the lines used for mechanical drawing and their uses. (6) Practice drawing lines according to the drafting example.	Review: Understand the relationship between the learning objectives of the department and this course Understand the selection of drawing paper size in standards of mechanical drawing Homework: Complete the rest of the exercises	200
2 /	[Typeface of character] [Drafting paper and scale]	(1) Lecture the typeface used for mechanical drawing and their uses. (2) Practice typeface of character according to the drafting example. (3) Lecture the paper size used for drafting and recommended scales.	Homework: Make a drawing frame template	200
3 /	[Orthographic projection]	(1) Lecture on the projection method by third angle system. (2) Exercise of third angle system drawing with thinking about the front view.	Homework: Complete the rest of the exercises	200
4 /	[Isometric projection]	(1) Lecture on how to show the shape of an item three-dimensionally. (2) Exercise of the isometric projection drawing. (3) Exercise of the cabinet projection drawing.	Homework: Complete the rest of the exercises	200

5 /	[Dimensioning method] [Freehand drawing 1-1]	(1) Lecture on the basic method of filling in dimensions. (2) Lecture on the symbol for dimensioning. (3) Create a drawing of the packing gland.	Homework: Proceed with drawing	200
6 /	[Freehand drawing 1-2]	(1) Complete a drawing of the packing gland. (2) Inspect the drawing yourself. (3) Inspect drawings drawn by others.	Homework: Correct and complete the drawing Review: Reconfirmation of un-acquired items for the intermediate test.	200
7 /	[Mid-term test] [Freehand drawing 2-1]	(1) Self-inspection of learning comprehension level with mid-term test. (2) Lecture on screw thread specifications and drawing methods. (3) Exercise of the screw drawings.	Review: Understand the drawing method of the screw thread. Homework: Correct and complete the drawing	200
8 /	[Freehand drawing 2-2]	(1) Create a hexagon head bolt fastening drawing.	Homework: Correct and complete the drawing	200
9 /	[Freehand drawing 3-1]	(1) Lecture on how to draw gears. (2) Calculate typical specifications of gears. (3) Create a drawing of spur gear.	Homework: Proceed with drawing	200
10 /	[Freehand drawing 3-2]	(1) Complete a drawing of spur gear.	Homework: Correct and complete the drawing	200
11 /	[Size tolerance]	(1) Lecture on dimensional tolerances. (2) Lecture on the system of fits. (3) Exercises of dimensional tolerance and system of fits.	Homework: Complete the rest of the exercises CAD software installation	200
12 /	[CAD drawing 1]	(1) Set up a CAD environment. (2) Lecture of basic CAD operating method. (3) Create a spanner shape model.	Homework: Make and complete a drawing	200
13 /	[CAD drawing 2-1]	(1) Create the miniature jack parts models. (2) Create a miniature jack assembly model.	Homework: Correct and complete the CAD models	200

14 /	[CAD drawing 2-2]	(1) Create miniature jack parts drawings.	Homework: Correct and complete the parts drawings	200
15 /	[CAD drawing 2-3]	(1) Create a miniature jack assemble drawing.	Homework: Correct and complete the assemble drawing Review: Reconfirmation of un-acquired items for the achievement test.	200
16 /	Final exam		Review all materials	
17 /	Returning final exam results			

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Robot Mechanics	2	540500	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	KUSHIMA, Yoshihiro / EVANS, Davis	31.117		16:50~17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Equation of motion	Continue improving your understanding of Newton's equation of motion as the basis for dynamics, such as the movement of a mass system and rigid body caused by external force or torque. Prepare for subsequent specialized mechanics courses. Acquire the knowledge necessary for the design and analysis of complex machines such as robots.
2	Moment of inertia	
3	Laws of conservation of momentum and angular momentum	
4	Collision and impulse	
5	Rigid body motion	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a continuation of Engineering Mechanics. For studying mechanics, it is important to solve a variety of mechanical problems independently in addition to understanding the meaning of terms and mathematical formulas.
In this course, the following basic mechanics topics are covered:
1. Newton's equation of motion
2. Movement of mass point received by the damping force or restoring force
3. Motion of the center of gravity and mass system
4. Collision mechanics
5. Momentum, angular momentum, work, and energy
6. Moment of inertia
7. Friction
8. Rigid body motion

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Engineering Mechanics: Dynamics in SI Units (PEARSON)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Be familiar with the mathematics and physics used in basic engineering to solve a number of exercise problems.
Acquire the content of this class, which is essential for understanding specialized subjects in the following year.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Calculate the center of gravity and moment of inertia of objects with simple shapes.
②	h, i	Explain the motion around the center of gravity of a mass system.
③	h, i	Explain the collision phenomenon using the law of conservation of momentum.
④	h, i	Understand the relationship between angular momentum and moment of force.
⑤	h, i	Explain the motion of a rigid body using the law of conservation of angular momentum.
⑥	h, i	Explain the dynamic behavior of a rigid body using the equation of motion.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		35	20	35	0	0	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	10	0	0	0	0	35
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	15	0	0	0	5	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	A written exam is given at the end of the term. Understanding the ideas behind the equations of motion is as important as memorizing these equations.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	Several 50-minute quizzes are given to improve comprehension.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will prepare and submit reports to demonstrate their understanding of assigned topics and issues.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	Students will be evaluated based on learning efforts in lectures and practices and report submission.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
1. Calculate the moment of inertia of various machine models from the definition of moment of inertia. 2. Derive equations of motion for various machine models and solve them so as to explain the dynamic behavior of machine models. 3. Analyze various collision phenomena using the momentum conservation law. 4. Explain the dynamic behavior of various machine models using the law of conservation of angular momentum. 5. Explain the dynamic behavior of various machine models using the energy conservation laws.	1. Calculate the moment of inertia of an object consisting of a combination of basic form. 2. Describe the equations related to motion for the center of gravity of mass systems. 3. Derive the velocity after the centripetal collision of two bodies on a straight line by using the conservation of momentum. 4. Describe the equations related to rotation and plane motion of rigid bodies. 5. Apply the energy conservation laws to explain the motion of a mass subject to gravity or a restoring force.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Kinematics of a Particle: Force and Acceleration (1)	Lecture and Q&A	Understand the objectives of the course Review lecture content and assignments	200
2 /	Kinematics of a Particle: Force and Acceleration (2)	Lecture and Q&A	Review lecture content and assignments	200
3 /	Kinetics of a Particle: Work and Energy	Lecture and Q&A	Review lecture content and assignments	200
4 /	Kinetics of a Particle: Impulse and Momentum (1)	Lecture and Q&A	Review lecture content and assignments	200
5 /	Kinetics of a Particle: Impulse and Momentum (2)	Lecture and Q&A	Review lecture content and assignments	200
6 /	Review for Quiz 1	Review	Review lecture content and assignments	200
7 /	Quiz 1	Review and Quiz	Review lecture content and assignments	200
8 /	Quiz 1 Return Planar Kinematics of a Rigid Body	Lecture and Q&A	Review lecture content and assignments	200
9 /	Planar Kinematics of a Rigid Body: Force and Acceleration (1)	Lecture and Q&A	Review lecture content and assignments	200
10 /	Planar Kinematics of a Rigid Body: Force and Acceleration (2)	Lecture and Q&A	Review lecture content and assignments	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Planar Kinematics of a Rigid Body: Work and Energy	Lecture and Q&A	Review lecture content and assignments	200
12 /	Planar Kinematics of a Rigid Body: Impulse and Momentum	Lecture and Q&A	Review lecture content and assignments	200
13 /	Review for Quiz 2	Review	Review lecture content and assignments	200
14 /	Quiz 2	Review and Quiz	Review lecture content and assignments	200
15 /	Quiz 2 Return Review for Final Exam	Review	Review lecture content and assignments	200
16 /	Final Exam	Exam	Check comprehension for the entire course	50
17 /	Final Exam Return Self-evaluation	Review Self-evaluation	Review	50

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Design of Machine Element	2	540200	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	HAN, Justin	31.119		Wednesday 4:50-5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Mechanical Design Mechanical Loads Material Strength Material Failure Mechanical Elements	Machine Elements are the foundations of any physical and mechanical system that is used in society. Students in this course will study how these elements are designed along with the considerations involved with applying these designs to the physical world.

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

With a focus on design methodology, the progression of this course is as follows:

1. Strength and Stiffness of materials
   - Loads and Material strength
   - Material Failure
2. Mechanical Elements
   - Screws
   - Bearings
   - Gears
   - Shafts and couplings

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Fundamentals of Machine Component Design, Asia Version, 7th Edition ISBN-13: 978-1119590637

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

An understanding of:

- Algebra
- Static mechanics

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, g, h	Be able to explain the effect of forces on material strength and reliability.
②	b, g, h	Be able to explain the conditions for material failure and methods for failure prevention.
③	b, g, h	Be able to explain the design process for screws.
④	b, g, h	Be able to explain the design process for bearings.
⑤	b, g, h	Be able to explain the design process for gears.
⑥	b, g, h	Be able to explain the design process for shafts.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	15	0	0	0	0	45
	Ability to think, reason and create	20	10	15	0	0	0	0	45
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be a final exam at the end of the semester that will test you on the important concepts introduced throughout the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be two 50-minute quizzes that will test you on the concepts introduced in the weeks before the quiz. For these quizzes you will be allowed to prepare one sheet of notes for reference. Makeup quizzes will not be allowed without a valid excuse.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	There will be homework for every topic introduced. Some time will be allotted during class to review the homework assignments, but you will be need to spend time outside of class to complete them. Late home will be accepted after their submission deadline at a -10% late penalty per school day up to a max of 50%. However, any homework that is copied will result in a 0.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Able to calculate and explain efficient designs based on various loadings conditions - Able to explain and incorporate material failure into design considerations - Able to design and/or apply screws based on situational considerations - Able to design and/or apply bearings based on situational considerations - Able to design and/or apply gears based on situational considerations - Able to design and/or apply shafts and couplings based on situational considerations	- Able to calculate the strength characteristics of a mechanical element subjected to simple loads. - Able to explain the various methods of material failure. - Able to explain the types and purposes of screws. - Able to explain the types and purposes of bearings. - Able to explain the types and purposes of gears. - Able to explain the types and purposes of shafts and couplings.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction to Machine Component Design Students learn about the considerations involved with machine component design.	Lecture	Review: Complete Assignment	200
2 /	Introduction to Load Analysis Students learn and review about the different types of loads and how loads affect physical materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
3 /	Introduction to Material Strength Students learn about mechanical stress, allowable stress, and factor of safety.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
4 /	Introduction to Failure Students learn about the different types of failure and the various factors that affect material failure.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
5 /	Introduction to Screws Students learn about the types and characteristics of screws.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
6 /	Introduction to Screws Students learn about the various considerations in the design and application of screws.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
7 /	Midterm Test	Quiz and Review	Preview: Read Assigned Chapters Review: Complete Assignment	200
8 /	Introduction to Bearings Students learn about the types and characteristics of bearings.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
9 /	Introduction to Bearings Students learn about the various considerations in the design and application of bearings.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
10 /	Introduction to Gears Students learn about the types and characteristics of gears.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Introduction to Gears Students learn about the various considerations in the design and application of gears.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
12 /	Introduction to Shafts Students learn about the characteristics of shafts and couplings.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
13 /	Introduction to Shafts Students learn about the various considerations in the design and application of shafts and couplings.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
14 /	End-of-Term Test	Quiz and Review	Preview: Read Assigned Chapters Review: Complete Assignment	200
15 /	Review	Lecture	Preview: Prepare review questions Review: Study for the final exam	200
16 /	Final examination	Descriptive test Self-check	Self-evaluation	
17 /	Review	Self-check & review		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Thermodynamics	2	540600	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	NAGANUMA, Kaname	44.203		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Heat Property and Unit Temperature and Heat Ideal gas The 1st law of thermodynamics	Students will: (1) learn basic knowledge for heat, energy (2) learn how to energy conversion, heat to work (3) acquire design skills for energy conversion in mechanical engineering

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.
This is a basic course of thermodynamics. We will cover the following materials:

1. Thermal equilibrium and the zeroth law of thermodynamics
2. Heat, specific heat capacity and other basic units
3. The 1st law of thermodynamics
4. Characteristics of ideal gas and real gas
5. Energy and enthalpy
6. Energy conversion

Students are expected to understand the meaning of terms and formulas.
Students are expected to solve the exercises by yourself.
Students should be aware of the teacher's instructions in the class, because the schedules of quizzes, tests and reports may change as the class progresses.
Students should not be absent the class, as the handouts may be not received.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Thermodynamics, English-Japanese Bilingual Textbook Series of Fundamental Engineering, Masataka Arai and Tomohiko Furuhata, Morikita Publishing
Reference books:
Technical Thermodynamics for Engineers -Basic and Applications-, Achim Schmidt, Springer
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Enough skill of mathematics (especially differential / integral calculations)
How to use a calculator.

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Be able to explain the zero law of thermodynamics and apply to a subject
②	g, h, i	Be able to explain the characteristics of ideal gas and apply to a subject
③	g, h, i	Be able to explain the characteristics of mixed gas and apply to a subject
④	g, h, i	Be able to explain the zeroth law of thermodynamics
⑤	g, h, i	Be able to explain the 1st law of thermodynamics
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	10	0	0	0	0	0	10
	Ability to think, reason and create	0	40	20	0	0	0	0	60
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	10	10	0	0	0	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✔	There are tests to evaluate the level of understanding.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥		
Reports	①	✔	Students will be evaluated on reports.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Explain the thermal phenomenon, property, the zero law of thermodynamics, temperature and quantity of heat. Also solve the advanced problems related issue by these understanding. (2) Explain the ideal gas. Also solve the advanced problems related issue by these understanding. (3) Explain the 1st law of thermodynamics. Also solve the advanced problems related issue by these understanding. (4) Explain the real gas. Also solve the advanced problems related issue by these understanding.	(1) Explain the thermal phenomenon, property, the zero law of thermodynamics, temperature and quantity of heat. Also solve the basic problems related issue by these understanding. (2) Explain the ideal gas. Also solve the basic problems related issue by these understanding. (3) Explain the 1st law of thermodynamics. Also solve the basic problems related issue by these understanding. (4) Explain the real gas. Also solve the basic problems related issue by these understanding.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction	Lecture Self-check	Prepare chpt.1.1- 1.4 on the text book. Review	100 100
2 /	Property and units	Lecture and practice Self-check	Prepare chpt.2.1- 2.6 on the text book. Review the class	100 100
3 /	Temperature and quantity of heat	Lecture and practice Self-check	Prepare chpt.3.1- 3.4 on the text book. Review	100 100
4 /	Review	Review and practice Self-check	Review the previous contents Review	100 100
5 /	Ideal gas (1)	Lecture and practice Self-check	Prepare chpt.4.1- 4.2 on the text book. Review	100 100
6 /	Ideal gas (2)	Lecture and practice Self-check	Prepare chpt.4.3- 4.4 on the text book. Review	100 100
7 /	Ideal gas (3)	Lecture and practice Self-check	Prepare chpt.4.5- 4.6 on the text book. Review	100 100
8 /	Review	Review and practice Self-check	Review the previous contents Review	100 100
9 /	Test (1)	Test Self-check	Review the previous contents Review	100 100
10 /	The 1st law of thermodynamics (1)	Lecture and practice Self-check	Prepare chpt.5.1- 5.4 on the text book. Review	100 100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Special lectures by external lecturers	Lecture	Prepare the previous contents	100 100
12 /	Test (2)	Review and practice Self-check	Review the previous contents Review	100 100
13 /	Review(1)	Test and Quizzes Self-check	Review the previous contents Review the test	100 100
14 /	Review(2)	Test and Quizzes Self-check	Review the previous contents Review the test	100 100
15 /	Introduction to Thermo Engineering II	Review Self-check	Review the previous contents	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Fluid Mechanics	2	540900	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	EVANS, Davis	31.309		Friday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Fluid Properties	In this lecture, you will learn the basics of fluid dynamics. Learn the basic properties of fluids, Bernoulli's theorem, continuity equation, law of momentum, etc. In order to acquire the ability to apply principles to practice, students will master application examples through exercises. A good understanding of these principles is a prerequisite for a mechanical engineer.
2	Pressure and Total pressure	
3	Bernoulli's principle	
4	Continuity equation	
5	Law of momentum	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

■ Class structure
As for the structure of the lesson, have them work on their homework after the lecture.

■ About the lecture
As a general rule, classes are conducted based on textbooks.

■ About homework
Do homework every week. Work on homework during class and self-study time and submit by next time

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: *Understanding Fluid Flow* by Grae Worster
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

1 Fundamental understanding of solid body mechanics & physics
2 Calculus skills & knowledge of differentiation, integration, and solving Ordinary Differential Equations (ODEs)

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Be able to explain the properties of fluids, especially their compressibility and viscosity.
②	h	From the depth and existing pressure gradient, calculate the total pressure applied to the object.
③	h	Derive a basic model of fluid flow from mechanical principles such as stress, density, viscosity, and pressure.
④	h	Perform basic fluid calculations using the continuity equation, Bernoulli's equation, etc.
⑤	h	Understand the momentum theorem and apply it to actual fluid calculations
⑥	a	Understand the connection between learning content and community issues, and discuss and learn from each other.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		50	0	30	0	20	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	30	0	10	0	5	0	0	45
	Ability to think, reason and create	20	0	10	0	5	0	0	35
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	5	0	0	10
	Attitude and motivation for learning	0	0	5	0	5	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✔	Comprehensive exam covering topics from lecture and exercise throughout the semester.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✔	Homework will be assigned to confirm understanding of the content of each week's lectures. As a general rule, a well though out answer, with work shown and process cited, will receive full credit, even if the final answer is not quite correct. Points will be deducted for missing work, incomplete answers, or failure to show line of reasoning. Points may still be deducted if the line of reasoning deviates too far from the concepts taught in class.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		At the end of the class, students will be asked to submit and perform a presentation on a simple fluid mechanics simulation. The student will be evaluated on both the presentation and the submitted simulation code & files.
	②		
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
The basic formula of flow can be derived from fundamental physical and mechanical principles. In particular, the problems related to the following matters can be completely solved. (1) Explain properties such as compressibility and viscosity. (2) The relationship expression between depth and pressure can be established and the total pressure can be calculated. (3) The basic formula of the flow can be derived. (4) Basic fluid calculation can be performed using the continuity equation, Bernoulli's equation, etc. (5) Understand the momentum theorem and apply it to actual fluid force calculation and basic design of fluid machinery. (6) Students can actively participate in in-class discussion sessions.	The following matters can be explained to some extent from the viewpoint of mechanics. (1) Explain the properties of fluids, especially the properties such as compressibility and viscosity. (2) The relationship expression between the depth of the fluid and the pressure can be established, and the total pressure applied to the object can be calculated. (3) The basic equation of flow can be derived. (4) Basic fluid calculation can be performed using the continuity equation, Bernoulli's equation, etc. (5) Understand the momentum theorem and apply it to actual fluid force calculations. (6) Participate in the question-and-answer session when prompted.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Explanation of lesson policy, purpose, outline, etc. Learn about the basic properties of fluids.	Lecture Exercise	Preparation and homework for this week's study	100 100
2 /	Learn about the properties of ideal fluids.	Lecture Exercise	Preparation and homework for this week's study	100 100
3 /	Learn about the properties of viscous fluids	Lecture Exercise	Preparation and homework for this week's study	100 100
4 /	In-class exercise and review.	Exercise	Preparation and homework for this week's study	100 100
5 /	Mathematics review: Differentiation	Lecture Exercise	Preparation and homework for this week's study	100 100
6 /	Mathematics review: Integration	Lecture Exercise	Preparation and homework for this week's study	100 100
7 /	Mathematics review: Solving Ordinary Differential Equations.	Lecture Exercise	Preparation and homework for this week's study	100 100
8 /	Parallel viscous flow	Lecture Exercise	Preparation and homework for this week's study	100 100
9 /	Parallel viscous flow continued	Lecture Exercise	Preparation and homework for this week's study	100 100
10 /	Viscous gravity currents	Lecture Exercise	Preparation and homework for this week's study	100 100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Viscous gravity currents continued	Lecture Exercise	Preparation and homework for this week's study	100 100
12 /	In-class exercise & review	Exercise	Preparation and homework for this week's study	100 100
13 /	Introduction to numerical analysis & simulation project. (computer required)	Lecture Exercise	Work on simulation project	100 100
14 /	Simulation project in-class work. (computer required)	Project Work	Work on simulation project	100 100
15 /	Simulation project wrap-up and presentation Test review. (computer required)	Project Work	Work on simulation project	100 100
16 /	Final exam	Exam	Study for exam	100
17 /	Test return and feedback	Review		

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Computer Architecture	2	541400	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	KUSHIMA, Yoshihiro	31.117		16:50 ~ 17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Hardware Software Network Single-board computer	In this course, students will learn about elemental technologies of computers in order to understand the mechanisms behind the computers in terms of hardware and software. And students also learn the technologies of single-board computers (e.g. Raspberry Pi and/or Jetson Nano). Knowledge from this course is usable in applying a single-board computer to future system development.

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minutes study times are worth one credit, and students need to have 30 50-minutes self-study times for 15 50-minutes classes.

This course introduces concepts of elemental technologies of computers including how computers work, memory, CPU, programming, storage, networks, OS, and I/O. Students will also learn about the configuration of the Raspberry Pi known as edge AI devices, through assignments.

Advice on taking this course:
- Be sure to prepare sufficiently for class and the incoming topics in advance.
- Have laptops or notebooks ready for assignment work.
- Submit assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic knowledge of computers

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	Students will be able to understand the hardware of a computer.
②	i	Students will be able to understand the software of a computer.
③	i	Students will be able to understand computer networks.
④	a, h, i	Students will be able to understand the configuration of single-board computers.
⑤		
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	60	0	30	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	20	0	0	0	0	25
	Ability to think, reason and create	0	5	20	0	25	0	0	50
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	10	0	5	0	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Students will have short quizzes in class to check their understanding of the contents.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Reports	①	✓	Exercises will be done on every topic.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will involve a lot of hands-on exercises starting with python programming and establishing a connection to raspberry pi. There is a final project in which each student will need to design an application that combines two or more electronic components.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
① Students are able to explain the function of each element of hardware and software in computer architecture. ② Students are able to explain computer networking correctly. ③ Students are able to perform IP subnetting correctly. ④ Students are able to design	① Students are able to understand the concept of hardware and software in computer architecture. ② Students are able to understand the basics of computer networking. ③ Students are able to perform simple network calculations using IP addresses. ④ Students are able to design an outline of possible uses for single-board computers.

Course Schedule

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Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance, Recapping Computing Understanding the overview of what computers do.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
2 /	Numbering system Understanding the binary notation and hexadecimal notation.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
3 /	Electric Memory (1) Understanding the basics of SRAM and DRAM.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
4 /	Electric Memory (2) Understanding the basics of cache and virtual memory.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
5 /	Processors Understanding the internal workings of CPUs.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
6 /	Storage Understanding the Non-Volatile Storage.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
7 /	Network Understanding the IP routing.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
8 /	Raspberry Pi Electronic Project (1) Understanding a raspberry pi electronic project and choosing electronic elements students want to learn.	Lecture Exercise	Read the given tutorial and proceed with self-project.	200
9 /	Raspberry Pi Electronic Project (2) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with self-project.	200
10 /	Raspberry Pi Electronic Project (3) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with self-project.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Raspberry Pi Electronic Project (4) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with exercises.	200
12 /	Raspberry Pi Electronic Project (5) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with exercises.	200
13 /	Final Project (1) Understanding a final project and choosing electronic elements for own project.	Lecture Exercise	Read the given tutorial and proceed with self-project.	200
14 /	Final Project (2) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with self-project.	200
15 /	Final Project (3) Continuing to work on self-project for a raspberry pi electronic project.	Exercise	Read the given tutorial and proceed with self-project.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Information Mathematics I	2	550100	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	GUO, Qinglian	31.104		Wednesday 2

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Logic	(1) To learn the foundations of logic and sets
2	Sets	(2) To learn the basics of counting
3	Counting	(3) To learn graphs and the applications
4	Graphs	(4) To learn trees and the applications
5	Trees	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

Students are expected to have high school graduate level mathematic knowledge. Also, they are required to have basic skills of using PowerPoint to draw graphs.

【Required Materials (textbooks, reference books, reserved books)】

Textbooks:

Reference books: Discrete mathematics and its application, Kenneth H. Rosen (AT&T), McGraw-Hill, Inc.

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Ability to capture the basic knowledge of sets, graphs, and trees
②	g, h, i	Ability to use the knowledge of logic, counting, and sets to explain and solve problems
③	b, c, d	Ability to collaborate with members to design 3D models using the knowledge of discrete mathematics
④	g, h, i	Ability to explain sorting algorithms using the knowledge of trees
⑤		
⑥		

Evaluation Criteria

	Evaluation Method / Total Percentage	Exams	Quizzes	Reports	Presentations	Works	Portfolio	Other	Total
	Total Percentage	0	60	40	0	0	0	0	100
Comprehensive Strength Criterion	Ability to capture knowledge	0	40	10	0	0	0	0	50
	Ability to think, reason and create	0	20	10	0	0	0	0	30
	Collaboration and leadership	0	0	10	0	0	0	0	10
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	10	0	0	0	0	10

＊ The numerical breakdown shown by Comprehensive Strength Criterion is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	ㄴ	Twice 2x30%
	②	ㄴ	
	③	ㄴ	
	④	ㄴ	
	⑤		
	⑥		
Reports	①	ㄴ	Twice 20%X2
	②	ㄴ	
	③	ㄴ	
	④	ㄴ	
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Ability to explain the basic knowledge and applications of logic, sets, counting, graphs, trees, and sorting algorithms. Ability to collaborate with members to design 3D models using the knowledge of discrete mathematics. Ability to create animation of the models.	Ability to explain the basic knowledge of sets, graphs, and trees. Ability to collaborate with members to design 3D models using the knowledge of discrete mathematics.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Orientation Install software of Blender The foundations of logic	Lecture and exercise	Review	200
2 /	Sets Set operations Practicing of set operations (using Blender)	Lecture and exercise	Preview Review	80 120
3 /	Set operations Set applications Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120
4 /	The basics of counting Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120
5 /	Counting and discrete probability Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120
6 /	Introduction to graphs Report1 submission	Lecture and exercise	Preview Review	80 120
7 /	Various graphs Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120
8 /	Euler and Hamilton paths Quiz (30%)	Quiz and exercise	Preview Review	80 120
9 /	Shortest path problems Graph coloring Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120
10 /	Introduction to tree Practicing of 3D models design and creation	Lecture and exercise	Preview Review	80 120

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Tree traversal Practicing of trees and 3D models creation	Lecture and exercise	Preview Review	80 120
12 /	Trees and sorting tree Report 2 submission: trees and 3D models creation	Lecture and exercise	Preview Review	80 120
13 /	Trees and sorting tree Trees and computer	Lecture and exercise	Preview Review	80 120
14 /	Trees and sorting tree Trees and computer	Lecture and exercise	Preview Review	80 120
15 /	Quiz (30%) Explain and Answers Summary Interview	Exam and lecture	Preview Review	80 120

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Information Mathematics II	2	550200	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	HAYASHI, Ryoko	Yatsukaho C:67.321		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Probability Statistics Data science	Probability and statistics are two of the basic knowledge of science and technology. Machine learning has been attracting attention in recent years, and probability and statistics are the basis of machine learning. In this course, students will acquire basic knowledge of probability and statistics, which are essential in science and technology, through classroom lectures and practical training.

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
In this course, you will learn the basic contents of probability and statistics in classroom lectures, and deepen your understanding through computer exercises.
You will use Python for most computer exercises, but also use Excel.
The order of the learning contents shown in the course schedule is a guide, and the details will be provided by the instructor.
At least the following contents will be included:

- Basics of Python, basics of Excel
- Probability (dependent and independent, conditional probability, random variable, normal distribution)
- Statistics (representative values, scatter, correlation, statistical hypothesis testing, confidence intervals, Bayesian inference)

Other contents may be added at the discretion of the instructor.

Some programming experience is desirable, but not required at the beginning of the course. If necessary, study by yourself during the course period to supplement the programming abilities required to acquire this course.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Data Science from Scratch, Second Edition, Joel Crus, O'Reilly, (2019).
Reference books:
Reserved books: 「ゼロからはじめるデータサイエンス第２版」, (2020) (in Japanese).

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of mathematics is required. Specifically, you should have a general understanding of the basics of inequalities, equations, elementary functions such as polynomial functions and exponential functions, and calculus.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b	Students will learn the application of probability and understand the significance of returning the knowledge to society.
②	g	Students will learn the basics of how to handle data and understand the possibility of creating new value from data.
③	h	Students will be able to express their thoughts on statistical information on various events.
④	i	Students will acquire basic probability and statistical knowledge and experience with a view to developing into data science.
⑤		
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	60	0	0	0	0	40	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	0	0	0	0	10	40
	Ability to think, reason and create	0	30	0	0	0	0	10	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	10	10
	Attitude and motivation for learning	0	0	0	0	0	0	10	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✔	Make sure that you understand the basic knowledge of probability and statistics, and that you can apply it properly.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✔	Make sure that you understand the basic knowledge of probability and statistics, and that you can apply it properly. In order to confirm whether you can handle the learning contents properly using a computer, you may need to submit deliverables of computer training.
	②	✔	
	③	✔	
	④	✔	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
You can fully understand the learning contents related to probability and statistics and apply them to real-world problems. You can master both Python and Excel in computer training and apply the learning contents to actual data.	You can generally understand the learning contents related to probability and statistics, and apply the basic contents to real-world problems. In computer training, you can apply the learning contents to actual data using at least one of Python and Excel.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance. Explanation of outline of the subject, how to proceed with the lesson, preparation, review, and evaluation method Textbook Chapter 1 Introduction	It is basically face-to-face, but it may be done online.	Review (install and check Python, try using Python)	200
2 /	Textbook Chapter 2 (First Half) Python Quick Learning Course Chapter 3 Data Visualization	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
3 /	Textbook Chapter 2 (Second Half) Python Quick Learning Course Chapter 4 Linear algebra	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
4 /	Textbook Chapter 5 Statistics Excel work for Statistics	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
5 /	Textbook Chapter 6 Probability (First half) Comprehensive Exercise 1	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
6 /	Quiz 1 Textbook Chapter 6 Probability (Second half)	It is basically face-to-face, but it may be done online.	Review (lean the previous parts of the textbook) Review (resolve the problem)	60 140
7 /	Textbook Chapter 7 Hypothesis and Presumption (First half) Quiz 1 review	It is basically face-to-face.	Preparation for quiz Review (actually process data on a computer using Python)	140 60
8 /	Textbook Chapter 7 Hypothesis and Presumption (Second half)	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
9 /	Textbook Chapter 8 Gradient descent method Comprehensive Exercise 2	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
10 /	Quiz 2 Textbook Chapter 9 Getting Data (First half)	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Textbook Chapter 9 Getting data (Second half) Quiz 2 review	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
12 /	Textbook Chapter 10 Working with Data (First half)	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140
13 /	Textbook Chapter 10 Working with Data (Second half) Comprehensive exercise 3	It is basically face-to-face, but it may be done online.	Review (lean the previous parts of the textbook) Review (resolve the problem)	140 60
14 /	Quiz 3 Textbook Chapter 11 Machine Learning	It is basically face-to-face.	Preparation for quiz Review (actually process data on a computer using Python)	140 60
15 /	Quiz 3 review For future development of probability and statistics, further learning	It is basically face-to-face, but it may be done online.	Preparation (learn the relevant part of the textbook) Review (actually process data on a computer using Python)	60 140

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Computer System A	2	550600	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	OGAWA, Hayato	101.201		16:30 to 17:30 (Week day)

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Digital number system	Students will learn to understand the operation and design of combinational and sequential logic circuits that construct computer memory systems. This course will guide the students to perform conversion of the digital number system, understanding the working of logic gates, using Karnaugh map to simply Boolean expression, and designing a digital counter circuit using flip-flops.
2	Logic gates	
3	Boolean algebra	
4	Karnaugh map	
5	Sequential circuits	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes. In this course, students will be introduced to the basics of digital circuits and systems. The course is prepared to provide students with basic knowledge of digital memory circuits based on combinational logic circuits and sequential circuits. After completing the course, students should be able to explain and discuss the basics principles of digital memory circuits. This course includes lectures, hands-on work, and an individual project.

Advice on taking this course:

- Be prepared for class and study the incoming topics in advance.
- Do the assignment and make sure to submit all your work on time.
- English will be the main challenge in this course. Make sure you ask for help from the teacher or friends.

The use of an electronics dictionary is strongly encouraged.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

1. Ability to perform simple algebra operations.
2. Basics knowledge of mathematical operations (add, subtraction, multiplication, and division)

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,h	Students will be able to perform the conversion of digital number systems.
②	a,h	Students will be able to write Boolean algebra expressions of the given combinational circuits.
③	a,h	Students will be able to use the Karnaugh map to simplify Boolean algebra expression.
④	a,h,i	Students will be able to design circuits from the simplified Boolean algebra expression.
⑤	a,h	Students will be able to explain the operation of latches and flip-flop.
⑥	a,h,i	Students will be able to design an Asynchronous counter and a Synchronous counter.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	40	0	40	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	10	0	0	20	0	0	30
	Ability to think, reason and create	0	10	20	0	20	0	0	50
	Collaboration and leadership	0	0	10	0	0	0	0	10
	Announcement / Expression / Communication	0	0	5	0	0	0	0	5
	Attitude and motivation for learning	0	0	5	0	0	0	0	5

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There are five quizzes in this course. Each quiz accounted for 5 points out of a total of 25 points. • Students who are absent during the day can ask the teacher to reschedule the quiz. • However, rescheduling must be within the same week of the quiz.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Weekly exercises will be handed to the students based on what they have learned in the week. All target ability related questions will be included in the exercise. • If a student is absent, it is the responsibility of the student to collect the weekly exercise from the teacher. Completed weekly exercise must be submitted on time as mentioned by the teacher.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	There are two small projects and one final project. Each small project accounted for 5 points out of the total of 40 points. The remaining 20 points are covered in the final project. The projects will test students' cognitive and psychomotor skills related to what they have learned in the class. Project assignment/worksheet must be submitted on time as mentioned by the teacher.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can understand and explain the working principle of logic gates with the correct schematic diagram. Students can perform simplification of Boolean expressions using the Karnaugh map. Students can design Asynchronous and Synchronous counter complete with the logic circuits and timing diagram	Students can understand the concept of the working principle of logic gates correctly. Students can perform simplification of Boolean expressions using the Karnaugh map. Students can design Asynchronous and Synchronous counter correctly.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	i. Syllabus guidance ii. Digital number system - Binary, decimal, hexadecimal Conversion of the number system	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
2 /	i. Quiz 1 (Binary, decimal, and hexadecimal) ii. Introduction to basic logic gates and universal gates - Read MIL symbol and Boolean expression. Boolean algebra	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
3 /	i. Quiz 2 (Boolean Algebra) ii. Sum-of-Product (SOP) & Product-of-Sum (POS) Karnaugh map (K-Map)	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
4 /	i. Simplification of Boolean expression using Karnaugh map - Draw circuits from the simplified Boolean expression. Quiz 3 (K-Map)	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
5 /	Project 1 (Simulation software) Design of Binary-Coded Decimal (BCD) circuit.	- Project worksheet	- Read PowerPoint notes. Complete Exercise	200
6 /	i. Binary addition and arithmetic circuits 1 Understand half adder and full adder circuits	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
7 /	i. Binary addition and arithmetic circuits 2 - Subtraction using 2`complement method. - Understand adder-subtractor circuits. ii. Quiz 4 (Binary addition and subtraction)	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
8 /	i. Decoder and Encoder Understand decoder and encoder circuits	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
9 /	i. Latches and flip – flops 1 - Introduction to SR, JK, and D flip-flops - Understand the characteristics of a flip-flop with a truth table and timing diagrams.	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
10 /	i. Latches and flip – flop 2 - Introduction to SR, JK, and D flip-flops - Understand the characteristics of a flip-flop with a truth table and timing diagrams. Quiz 5 (flip-flop)	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	i. Asynchronous counter - Understand the working principle of asynchronous counter. - Design asynchronous counter.	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
12 /	i. Project 2 (Hardware) Design a 2-bit asynchronous counter.	- Construct a physical asynchronous digital circuit. complete project worksheet	- Read PowerPoint notes. Complete Exercise	200
13 /	i. Synchronous counter - Understand the working principle of synchronous counter. - Design a synchronous counter.	- Lecture Worksheet	- Read PowerPoint notes. Complete Exercise	200
14 /	i. Final Project Introduction (Simulation software) Design a 3-bit truncated sequence synchronous counter.	- Design and construct a synchronous counter simulation using software. Complete project worksheet	- Read PowerPoint notes. Complete Exercise	200
15 /	ii. Final Project (Simulation software) Finalize the 3- bit counter and review report format and files.	- Submit final report and class survey Complete project worksheet	- Complete project and hand in	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Computer System B	2	550700	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	FUJISHIMA, Satoshi	Kanazawa C 31.116		Thu. 16.30 - 17.30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Hardware	In this course, students will learn about elemental technologies of computers to understand the mechanisms behind the computers in terms of hardware and software. Students also learn basic technologies for building a 4-bit CPU by creating logic circuits and implementing them in FPGA board.
2	Software	
3	Network	
4	FPGA	
5		

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

This course introduces concepts of elemental technologies of computers including how computers work, memory, CPU, storage, networks. Students will also learn about the design and building of a 4-bit CPU through the creation of logic circuits and their implementation in an FPGA board.

Advice on taking this course:
- Be sure to prepare sufficiently for class and the incoming topics in advance.
- Have laptop ready for assignment work.
- Submit assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic knowledge of computers

No.	Program Objectives	Target Abilities for Students (9pt)
①	i	Students will be able to understand the hardware of a computer.
②	i	Students will be able to understand the software of a computer.
③	i	Students will be able to understand the computer networks.
④	a, h, i	Students will be able to understand the basics of 4bit CPU design.
⑤	a, h, i	Students will be able to understand the simple FPGA architecture and its implementation.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	30	0	60	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	0	25	0	0	40
	Ability to think, reason and create	0	5	10	0	25	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	5	0	0	10
	Attitude and motivation for learning	0	0	5	0	5	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Students will have short quizzes in class to check their understanding of the contents.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥		
Reports	①	✓	Reports are written assignments for final project.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Works are worksheet exercises assigned during class. The assignments should be submitted by the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can explain the function of each element of hardware and software in computer architecture. Students can explain computer networking correctly and perform IP address calculations correctly. Students can design a more than 4-bit CPU and implement it in an FPGA board.	Students can understand the concept of hardware and software in computer architecture. Students can understand the basics of computer networking and perform simple IP address calculations. Students can design a 4-bit CPU and implement it in an FPGA board.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance, Recapping Computing and Numbering system Understanding overview of what computers do.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
2 /	Numbering system (2) Understanding binary notation and hexadecimal notation.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
3 /	Electric Memory Understanding basics of SRAM, DRAM, Cache and Virtual memory. Quiz 01 (Numbering system)	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
4 /	Inside CPU and Non-Volatile Storage Understanding internal workings of CPUs and Non-Volatile Storage.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
5 /	Networking (IP routing) Understanding IP routing and IP address calculations.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
6 /	Networking (IPv4 Addressing & Subnetting) Understanding IPv4 subnetting and subnetting.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
7 /	Networking (VLSM Subnetting) Understanding variable-length subnet mask subnetting.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
8 /	Logic Gates Understanding transistors, logic gate Boolean theorem. Quiz 02 (IPv4 subnetting and subnetting)	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
9 /	Execution Cycle & ALU Instructions Understanding execution cycle of CPU and 1-bit ALU.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
10 /	Four-bit ALU Understanding construction of 4-bit ALU based on 1-bit ALU. Quiz 03 (VLSM subnetting)	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	CPU Design: Instruction Set Understanding simple instruction set for 4-bit CPU.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
12 /	CPU Design: Registers, ALU and ROM Understanding wiring of registers, ALU and ROM for building of 4-bit CPU.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
13 /	CPU Design: Decoder Understanding wiring of decoder to the previous logic circuit for building of 4-bit CPU.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
14 /	Implementation of CPU in FPGA (1) Understanding implantation of 4-bit CPU in FPGA board.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200
15 /	Implementation of CPU in FPGA (2) Understanding implantation of 4-bit CPU in FPGA board.	Lecture Exercise	Read the given lecture slides and proceed with exercises.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Data Structures and Algorithms	2	550900	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	FUJISHIMA, Satoshi	Kanazawa C 31.116		Thu. 16.30 - 17.30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Data Structures	Data structures and algorithms are fundamental concepts of computer science. Knowledge of data representation, data structures, and algorithms is essential in the development, use, and maintenance of adaptable, reusable, and efficient software. In this course, students will learn about basic data structures and algorithms that provide a foundation for writing efficient computer programs.
2	Algorithms	
3	Computers	
4		
5		

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

Data structures and algorithms have become essential in computer science to develop efficient programs. These programs are used to create web applications, supercomputing, and AI programs, etc.

This course will introduce students to theoretical background using mathematics. Students will be able to apply their programming knowledge through creating original applications.

Advice on taking this course:
- Have laptop ready before class starts.
- Be sure to prepare sufficiently for class and the incoming topics in advance.
- Submit assignments on time.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students must have the ability to express their ideas logically.

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Recognize the importance of data structures.
②	g, h, i	Recognize the importance of algorithms
③	g, h, i	Figure out advanced algorithm procedures
④	g, h, i	Understand the sorting algorithms
⑤	g, h, i	Understand the queue and stack
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	30	0	0	70	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	30	0	0	40	0	0	70
	Ability to think, reason and create	0	0	0	0	20	0	0	20
	Collaboration and leadership	0	0	0	0	10	0	0	10
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be three or four quizzes to check understanding of the content.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Works are worksheet exercises assigned during class. The assignments should be submitted by the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can recognize the importance of data structures and algorithms in computer science. Students further understand that using them is crucial to develop efficient software.	Students can recognize the importance of data structures and algorithms to some extent. Students generally understand their definitions.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Prime numbers	Lecture Exercise	The teacher will announce assignments in class.	200
2 /	Big O Sorting: Selection sort	Lecture Exercise	The teacher will announce assignments in class.	200
3 /	Sorting: Merge sort	Lecture Exercise	The teacher will announce assignments in class.	200
4 /	Sorting: Quick sort	Lecture Exercise	The teacher will announce assignments in class.	200
5 /	Searching: Linear, binary	Lecture Exercise	The teacher will announce assignments in class.	200
6 /	Searching: Tree	Lecture Exercise	The teacher will announce assignments in class.	200
7 /	Searching: Maze (1)	Lecture Exercise	The teacher will announce assignments in class.	200
8 /	Searching: Maze (2)	Lecture Exercise	The teacher will announce assignments in class.	200
9 /	Hash	Lecture Exercise	The teacher will announce assignments in class.	200
10 /	Stack and Queue	Lecture Exercise	The teacher will announce assignments in class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	String Matching: Brute-force	Lecture Exercise	The teacher will announce assignments in class.	200
12 /	String Matching: Boyer–Moore	Lecture Exercise	The teacher will announce assignments in class.	200
13 /	Knapsack Problem Dynamic programming	Lecture Exercise	The teacher will announce assignments in class.	200
14 /	Huffman Coding	Lecture Exercise	The teacher will announce assignments in class.	200
15 /	Comprehensive Exercises	Lecture Exercise	The teacher will announce assignments in class.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Software Engineering	2	551000	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	SONGER, Robert	Kanazawa C: 31.115		Wed. 16:00 – 17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Development Process	Software Engineering is a field that generally includes all the professional activities surrounding the development of software products. It combines engineering, computer science, and management to define the process from concept to realization and beyond. Up to this point, students have taken many courses on implementing software programs, so this class will instead focus on planning, designing, testing, and maintaining software.
2	Requirements Specification	
3	Software Design	
4	Software Testing	
5	Software Maintenance	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

Having learned about programming in previous classes, students in this course will instead investigate the context of software development projects and the activities for requirements specification, design, testing, operation, and maintenance. Lessons will include comparisons of the traditional "waterfall" style of development to the more modern "agile" style. Students will gain a deeper understanding of object-oriented concepts and learn Unified Modeling Language (UML) to analyze software design patterns.

PC use during class is okay for following along with the digital materials provided by the teacher. If you miss a class period, talk to the teacher about missing work **before the start of the next class**. Keep a binder or folder for your papers and notes and use good study techniques to pick up the specialized English vocabulary. The teacher may consider your assignments late if you are disruptive or do not participate in class activities.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None
Reference books: None
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students must know the basic concepts of Object-Oriented Programming and the Python language. In addition, students must be familiar with the idea of software development processes.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b	Explain the importance of Software Engineering.
②	g, h	Understand and explain all the stages of the software development cycle.
③	e, h	Explain the differences between traditional and agile development processes.
④	f, h	Create appropriate documentation for each step of software development.
⑤	i	Identify important software engineering terms in English.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	40	60	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	20	20	0	0	0	0	40
	Ability to think, reason and create	0	20	10	0	0	0	0	30
	Collaboration and leadership	0	0	10	0	0	0	0	10
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	0	10	0	0	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There are two quizzes during the semester. The first quiz is a short essay that requires students to combine concepts they learned regarding the Software Engineering context. The second quiz is a short test with simple answer type questions such as multiple-choice and fill-in-the-blanks. Each quiz allows the students to confirm their comprehension of the covered content. There is one final quiz at the end of the semester which covers all previous topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Reports are general assignments including handouts, written reports, and documents created during various in-class activities. Reports will be evaluated based on the accuracy of student responses in most cases. Some types of reports (such as documentation) will be evaluated based on the amount of effort students put into their creation. In general, if a student submits one of these assignments late, **they will lose 20% of its maximum value towards their grade**.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
① Describe nuances in the context of engineering software ② Produce outcomes for all stages of the development lifecycle ③ Justify choosing a certain development process in a project ④ Create well-formatted software documentation ⑤ Understand the context of important English words	① Understand the advantages of the engineering process ② Identify activities in the development lifecycle ③ Recognize differences in waterfall and agile development ④ Identify documents used at each step of development ⑤ Understand the meaning of important English words

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance & Intro to Software Processes Receive an introduction to the course before investigating the software development process.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
2 /	Software Development Processes (1) Learn about the software development lifecycle (SDL) and process models.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
3 /	Software Development Processes (2) Investigate non-technical challenges for professional software developers.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
4 /	Review & Intro to Software Requirements Review the context of software engineering and then investigate system requirements specification.	Lecture Discussion Exercises Quiz	The teacher will announce assignments in class.	200
5 /	Requirements Specification (1) Examine the parts of a System Requirements Specification (SRS) document and the role of Use Cases.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
6 /	Requirements Specification (2) Compare Use Cases to User Stories and understand the differences between the two.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
7 /	Waterfall vs. Agile: Requirements Investigate the different ways that traditional Waterfall processes and Agile processes handle their requirements.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
8 /	Unified Modeling Language Review the components of Unified Modeling Language (UML) and how it is used in software design.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
9 /	Software Design Principles Examine the SOLID software design principles and understand various symptoms of bad software design in a project.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
10 /	Software Design Patterns Learn the types of software design patterns and consider patterns from each category for the design of a software system.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Review & Intro to Software Testing Review software design concepts before exploring two styles of testing software.	Lecture Discussion Exercises Quiz	The teacher will announce assignments in class.	200
12 /	Software Testing Learn about testing at different stages of the development process and then practice unit testing with a programming exercise.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
13 /	Waterfall vs. Agile: Testing Learn about Test-Driven Development (TDD) and compare it to traditional testing practices.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
14 /	Software Operation & Maintenance Investigate topics in the operation & maintenance stage of the software development lifecycle.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
15 /	Semester Review Review class content, complete any unfinished assignments, and take a final quiz combining all the material from the semester.	Guidance Self-Study Quiz	Review for the final quiz.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Elective	Programming Lab A	2	550400	First	Exercises Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	FUJISHIMA, Satoshi	Kanazawa C 31.116		Thu. 16.30 - 17.30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Python	The Python language is increasingly important in the modern computing world. In this course, students will learn Object-Oriented Programming (OOP), an essential programming paradigm, in addition to Python data structures such as lists and dictionaries. They will then expand their programming knowledge further with a chance for deeper learning in a programming project.
2	Object-Oriented Programming	
3	Application Development	
4		
5		

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

Course Description:
This course builds on knowledge about programming from previous courses and introduces the Python approach to common concepts, such as conditional branches, loops, and functions. After becoming familiar with the Python language, students will then study concepts of Object-Oriented Programming including abstraction, encapsulation, inheritance, and polymorphism. Finally, students will implement a programming project.

Expectations for Students:
Bring your PC to class every time but keep them closed until the teacher instructs you to open them. If you are having trouble following in class, schedule a time to meet with the teacher and get some assistance.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books: "Python Crash Course, 3rd Edition" (No Starch Press) ISBN-13: 978-1718502703
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students must be familiar with variables, conditionals, loops, and functions learned in previous programming-related classes. They must also be able to use the command line for their OS and discover helpful resources for various programming technologies on the Internet.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Apply existing knowledge about programming to learn a new programming language.
②	a, i	Discover useful and relevant resources for learning programming tools & technologies.
③	d, f	Collaborate with others to investigate new programming skills and techniques.
④	a, h	Create an application with object-oriented programming in the Python language.
⑤	e, g	Direct oneself and apply programming skills in the development of a specialized application.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	0	70	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	5	0	30	0	0	35
	Ability to think, reason and create	0	0	10	0	30	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	5	0	0	15
	Attitude and motivation for learning	0	0	5	0	5	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Reports are written assignments for final project.
	②		
	③	✓	
	④	✓	
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Students will involve programming exercises assigned during class. There is a final project in which each student will need to design an application.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Create Python programs as easily as any other language. Students are able to write a little complicated Python code with conditional branches, lists, dictionaries, functions and libraries. Use multiple OOP concepts to create a program.	Students are able to understand the basic syntax of Python. Students are able to write a simple Python code with conditional branches, lists, dictionaries, functions and libraries. Create basic classes to achieve programming goals.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance, Python Programming Environment (Python IDLE, command line) Variables, Data Types and Standard Input / Output	Lecture Exercise	The teacher will announce assignments in class.	200
2 /	Conditional Branches and Loops	Lecture Exercise	The teacher will announce assignments in class.	200
3 /	Lists	Lecture Exercise	The teacher will announce assignments in class.	200
4 /	Dictionaries	Lecture Exercise	The teacher will announce assignments in class.	200
5 /	Nested Lists and Dictionaries	Lecture Exercise	The teacher will announce assignments in class.	200
6 /	Strings	Lecture Exercise	The teacher will announce assignments in class.	200
7 /	Functions	Lecture Exercise	The teacher will announce assignments in class.	200
8 /	File Input / Output (1)	Lecture Exercise	The teacher will announce assignments in class.	200
9 /	File Input / Output (2)	Lecture Exercise	The teacher will announce assignments in class.	200
10 /	Object-Oriented Programming (1) - Abstraction	Lecture Exercise	The teacher will announce assignments in class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Object-Oriented Programming (2) - Encapsulation	Lecture Exercise	The teacher will announce assignments in class.	200
12 /	Object-Oriented Programming (3) - Inheritance	Lecture Exercise	The teacher will announce assignments in class.	200
13 /	Object-Oriented Programming (4) - Polymorphism	Lecture Exercise	The teacher will announce assignments in class.	200
14 /	Programming Project (1)	Lecture Exercise	The teacher will announce assignments in class.	200
15 /	Programming Project (2)	Lecture Exercise	The teacher will announce assignments in class.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Elective	Programming Lab B	2	550500	Second	Exercises Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	POKU, David	KC 31-118-1		9:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Embedded systems Microcontrollers Microprocessors Real-Time Operating Systems Python	Throughout the course, students will learn how to apply the C language to perform the basic function of a microcontroller. The basic function includes programming the digital input/output, Interrupts, Analog to Digital conversion (ADC), PWM control, and User input and output devices. Knowledge from this course is usable in designing digital control units for consumer electronics, industrial automation, telecommunication systems, etc.

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

Mastering Embedded Systems: From Fundamentals to Advanced Applications
This comprehensive 15-week course is designed to provide a deep dive into the world of embedded systems, covering a range of topics from the basics to advanced applications. Students will start by gaining an understanding of what embedded systems are and their applications in various industries. As the course progresses, they will explore microcontrollers and microprocessors, embedded system programming, I/O programming, and interfacing with various peripherals. The curriculum includes an introduction to Real-Time Operating Systems (RTOS), embedded system design principles, memory management, and sensor integration. Advanced topics such as embedded networking, power management, debugging, and emerging trends like embedded AI and security will also be covered. The course culminates in a capstone project where students will apply their learned skills to design and implement an embedded system.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	15	15	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	5	5	0	10	0	25
	Ability to think, reason and create	0	5	5	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	5	5	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be a quiz in week 4 / 8 / 14 The Evaluation methods will be via multiple-choice quiz Scoring: Assign points according to the answer key. correct answers receive full points, while incorrect or omitted answers receive zero points.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Active Participation: Regular attendance and active participation in lectures and discussions. Practical Engagement: Hands-on engagement in programming exercises, lab sessions, and interfacing tasks. Project Development: Active involvement in the capstone project, including planning, design, implementation, and presentation. Collaborative Learning: Work collaboratively on projects and labs, and participate in peer learning activities. assignments.	Critical Thinking and Problem Solving: The ability to analyze complex problems, think critically. Creativity and Innovation: Encouraging creativity and the ability to innovate. Communication: Effective communication skills, both verbal and written, tailored to a diverse range of audiences and mediums. Collaboration: Skills in working effectively in teams, demonstrating flexibility,

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Week 1: Introduction to Embedded Systems · Overview of Embedded Systems · Applications of Embedded Systems in Various Industries · Basic Components of Embedded Systems	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	200
2 /	Week 2: Microcontrollers and Microprocessors · Introduction to Microcontrollers and Microprocessors · Architecture of Microcontrollers · Selecting a Microcontroller for Projects	Activity / Explanation / Report		200
3 /	Week 3: Embedded System Programming Basics · Introduction to Embedded C and Other Programming Languages · Setting up the Development Environment · Writing Your First Embedded Program	Activity / Explanation / Report		200
4 /	Week 4: Input/Output Programming · Basic I/O Operations in Embedded Systems · Working with Digital I/O Ports · Analog I/O and ADCs	Activity / Explanation / Report		200
5 /	Week 5: Embedded System Peripherals · Understanding Peripheral Devices and Their Integration · Serial Communication Protocols (UART, SPI, I2C) · Interfacing with LCDs, Keyboards, and Other Modules	Activity / Explanation / Report		200
6 /	Week 6: Real-Time Operating Systems (RTOS) · Introduction to RTOS in Embedded Systems · Tasks, Threads, and Processes in RTOS · Scheduling and Task Management	Activity / Explanation / Report		200
7 /	Week 7: Embedded Systems Design · Embedded System Design Principles and Techniques · Hardware and Software Co-Design · Designing for Performance and Efficiency	Activity / Explanation / Report		200
8 /	Week 8: Memory Management · Memory Types and Memory Architecture · Memory Allocation and Management in Embedded Systems	Activity / Explanation / Report		200
9 /	Week 9: Interrupts and Timer Management · Understanding Interrupts in Embedded Systems · Configuring and Handling Interrupts · Timers and Timer Interrupt Programming	Activity / Explanation / Report		200
10 /	Week 10: Sensor Integration · Interfacing Sensors with Embedded Systems · Sensor Data Acquisition and Processing · Implementing Sensor Fusion Techniques	Activity / Explanation / Report		200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Week 11: Embedded Networking and Communications · Basics of Networked Embedded Systems · Wireless Communication in Embedded Systems (WiFi, Bluetooth) · Implementing IoT with Embedded Systems	Activity / Explanation / Report		200
12 /	Week 12: Power Management · Power Supply Design for Embedded Systems · Power Consumption Optimization · Battery Management Techniques	Activity / Explanation / Report		200
13 /	Week 13: Debugging and Testing · Debugging Techniques in Embedded Systems · Software Testing for Reliability · Hardware Testing and Troubleshooting Methods	Activity / Explanation / Report		200
14 /	Week 14: Advanced Topics in Embedded Systems · Emerging Trends in Embedded Systems · Embedded AI and Machine Learning Basics · Security Considerations in Embedded Systems	Activity / Explanation / Report		200
15 /	Week 15: Project and Review · Capstone Project: Planning and Design · Capstone Project: Implementation · Course Review and Wrap-Up	Presentation	Presentation	200

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required * Practical	Introduction to Management	2	551500	First	Lecture/ Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
4	*MEBUSAYA, Tossa	Kanazawa C: 31.307		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1 2 3 4 5	Management principles Organizations and team Decision Making Planning and Goal Change and Innovation	This is an introductory course on basic management concepts, principles and practices to acquire knowledge and skills for solving problems systematically and methodically. Students will be able to learn: 1) Management principles and functions, 2) Managing people and communication, and organizations, 3) Managing strategy, changes and innovation.

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes. The course deals with the essential topics of "management" according to the textbook, so students should read it carefully before attending each class. This course consists of lectures and active learning activities such as class discussions, individual/group work and presentations from students. The active learning activities of this course will help students extend their own organizational, communicational, managerial, and leadership skills, and enable them to successfully solve complex organizational problems. This course will deal with a wide range of concepts and materials of management, which involve broad examples and case studies providing insight and meaningful information. Students will be able to apply what they learn on a practical level and to succeed in their career/business. Be ready to discuss and ask questions about the course content. The instructor also expects students to focus on the class – cell phones should be put away, and laptops/tablets should be used for course-related work only. Please be respectful toward everyone in the class.

Relationship between this course and business experiences

The instructor brings working experiences as a team member, a business owner, and as Startup co-founder and coaching – from various organizations that operate in US, Canada and countries around Asia.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None

Reference books: Colin Combe, (2014). *Introduction to Management*, Oxford University Press. ISBN: 9780199642991

Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Ability to communicate in English, especially reading skills in English. You should preview materials or reading articles that are occasionally given prior each class. Hopefully, you are a bit curious about what you will be learning, have some questions in your mind and will be able to fit what you read into a bigger context of where it fits into the whole class.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,b,i	Students will be able to understand what management is and why it is important.
②	d,e,f	Students will be able to identify the functions of management in organisations.
③	b,g	Students will be able to discuss the components of a strategic plan.
④	b,g	Students will be able to outline the steps of the decision-making process.
⑤	c,d,e,f	Students will be able to evaluate effective team development and leadership.
⑥	a,g,h	Students will be able to consider the current business landscape and trends.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	30	10	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	15	10	0	0	0	25
	Ability to think, reason and create	0	0	15	15	5	0	0	35
	Collaboration and leadership	0	0	15	0	0	0	5	20
	Announcement / Expression / Communication	0	0	5	5	5	0	0	15
	Attitude and motivation for learning	0	0	0	0	0	0	5	5

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✔	Reports will include either individual or group reflections about some topics, and personal reflection on own learning experience. The format of the report will be announced by the instructor. - Class/chapter summary report - Research report
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Presentations	①	✔	Presentation will include either individual or group reflections about some topics, and personal reflection on own learning experience. The format of the presentation will be announced by the instructor.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Works	①	✔	Class discussion. Able to share and elaborate your ideas and viewpoints to the class. Be able to accept and be open to other's opinions. Able to form mutual understanding and decision.
	②	✔	
	③	✔	
	④	✔	
	⑤	✔	
	⑥	✔	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✔	Learning attitude, motivation for learning during class. Be respectful.
	②		
	③	✔	
	④	✔	
	⑤	✔	
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can understand what management is and why it is important. Students can identify the functions of management in organisations. Students can discuss the components of a strategic plan. Students can outline the steps of the decision-making process. Students can evaluate effective team development and leadership. Students can consider the current business landscape and trends.	Students can understand what management is. Students can understand some functions of management in organisations. Students can understand some components of a strategic plan. Students can understand the decision-making process. Students can understand the role of team and leadership. Students can be aware of the current business landscape and trends.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Class Introduction Introduction to Management	Lecture & Active Learning	Read the syllabus. Chapter summary and/or study given materials.	100 200
2 /	Management Theory	Lecture & Active Learning	Chapter summary and/or study given materials.	200
3 /	Planning	Lecture & Active Learning	Chapter summary and/or study given materials. Report 01.	200 100
4 /	Organising	Lecture & Active Learning	Chapter summary and/or study given materials.	200
5 /	Leading	Lecture & Active Learning	Chapter summary and/or study given materials. Report 02.	200 100
6 /	Controlling	Lecture & Active Learning	Chapter summary and/or study given materials.	200
7 /	Decision Making	Lecture & Active Learning	Chapter summary and/or study given materials.	200
8 /	Human Resource Management Motivation and Communications	Lecture & Active Learning	Chapter summary and/or study given materials. Report 03.	200 100
9 /	Managing Groups and Teams	Lecture & Active Learning	Chapter summary and/or study given materials.	200
10 /	Organisational Structure & Organisational Culture	Lecture & Active Learning	Chapter summary and/or study given materials. Report 04.	200 100

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Ethics and Corporate Social Responsibility	Lecture & Active Learning	Chapter summary and/or study given materials.	200
12 /	Strategic Management	Lecture & Active Learning	Chapter summary and/or study given materials. Report 05.	200 100
13 /	Marketing	Lecture & Active Learning	Chapter summary and/or study given materials. Prepare for presentation.	200 100
14 /	Change Management and Innovation	Lecture & Active Learning	Chapter summary and/or study given materials. Prepare for presentation.	200 100
15 /	Final Presentation: Students will present what was learnt in this course or related topics, reflect on their future	Lecture & Active Learning		300

令和６年度　学習支援計画書

「担当教員名」欄の＊＝実務経験のある教員

授業科目区分	科　目　名	単 位	科目コード	開講時期	授 業 形 態
国際理工学科 一般科目 選択	心理学	2	510600	前学期	講義／学修

対象学年	担当教員名	居室	電子メールＩＤ	オフィスアワー
5年	平　真由子	1・304		授業時予約

授 業 科 目 の 学 習 教 育 目 標

キーワード		学習教育目標
1	心理学の基礎知識	心理学は、個人的なものから社会的なものまで、様々なレベルの行動の背景にある「心」を科学的に理解しようとする分野である。技術者にとって、また社会人にとって、人間の行動を理解することは重要であり、心理学的な視点は自らのキャリア形成に非常に有効である。 本授業では、①自他の行動を心理学的な視点から理解し、人間に対する洞察力を涵養すること、②人の心に関する講義や討議で得た知識やスキルをもとに、自己成長につなげることを目標とする。
2	メンタルトレーニング	
3	自己理解	
4	他者理解	
5	自己成長	

授業の概要および学習上の助言

本講義は学修単位であるため、１単位を50分45回分の学習とし、50分授業15回に対して50分30回分の自学自習を行って下さい。
本科目では心理学について以下の項目を取り上げる。

＜取り上げるトピック＞
心理学の歴史、心と脳、感覚と知覚、動機づけの心理学、パフォーマンス発揮の心理学、記憶の心理学、性格の心理学
発達の心理学、社会や集団の心理学、心身の健康のための心理学

これらの各項目について、心理学の基礎的な概念や理論について説明する。さらに、演習やグループ討議を通して、その内容への理解を深め、自己理解、他者理解、自己成長につなげていく。
授業内で内容理解を深めるために、事前に予習を行うことを推奨する。予習の仕方については、第１回の講義で説明する。

評価については、各項目に関する講義の内容と基本的事項の理解を確認するために、小テストを3回、レポート課題2回、成果発表、授業内での演習の実施と振り返りの提出、および達成度確認テストを課す。また、欠席が全体の1/3以上になると成績を評価せずF判定（不合格）となる。

【教科書および参考書・リザーブドブック】
教科書：心理学概論[株式会社サイエンス社]
参考書：指定なし
ﾘｻﾞｰﾌﾞﾄﾞﾌﾞｯｸ：指定なし

履修に必要な予備知識や技能

・心理学に対する興味関心があり、教科書を事前に読んで、ある程度の予備知識を入れて受講することが望まれる。
・パワーポイントの作成、プレゼンテーション、グループディスカッションなどの演習も行うため、それらに関連する基本的なスキルを必要とする。
・授業を通して自己理解や他者理解を深めようとする態度、スキルアップを目指そうとする姿勢が望まれる。

No.	教育目標(DP)（記号表記）	学生が達成すべき行動目標
①	b, h, i	心理学の基礎用語をだいたい理解することができる。
②	b, h, i	心理学の基礎概念や理論について自分なりに説明することができる。
③	b, c, d, e, h, i	心理学の視点から、自他へ理解を深めることができる。
④	a, c, d, e, f, h, i	心理学の視点から自己や事例について思考し、文章やプレゼン等で説明することができる。
⑤	e, i	学生が達成すべき行動目標を自己評価できる。
⑥		

達　成　度　評　価

評価方法 指標と評価割合		試　験	クイズ 小テスト	レポート	成果発表 口頭・実技	作 品	ポートフォリオ	その他	合 計
総合評価割合		0	45	25	20	0	5	5	100
総合力指標	知識を取り込む力	0	33	5	5	0	0	0	43
	思考・推論・創造する力	0	12	15	5	0	0	0	32
	コラボレーションとリーダーシップ	0	0	0	0	0	0	0	0
	発表・表現・伝達する力	0	0	5	5	0	0	0	10
	学習に取組む姿勢・意欲	0	0	0	5	0	5	5	15

※総合力指標で示す数値内訳は、授業運営上のおおよその目安を示したものです。

評価の要点

評価方法	行動目標		評価の実施方法と注意点
試験	①		
	②		
	③		
	④		
	⑤		
	⑥		
クイズ 小テスト	①	レ	・小テストは3回実施（第4回、第8回、第11回の授業で実施）：複数の単元をまとめて試験範囲とし、授業の内容理解度を確認する。記号選択式問題とし、3回の合計点を15%に換算して最終評価に算入する。 ・達成度確認試験（第14回の授業で実施）：授業全体を試験範囲とし、授業の内容の理解度を確認する。記号選択式問題と記述式問題の混合型で出題する。得点を30%に換算して最終評価に算入する。
	②	レ	
	③		
	④		
	⑤	レ	
	⑥		
レポート	①	レ	・第5回の授業の中でレポートを作成し、提出する。レポート点を20%に換算し、最終評価に算入する。 ・第12回の特別講義を受講し、レポートを提出する。レポート点を5%に換算し、最終評価に算入する。
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
成果発表 （口頭・実技）	①	レ	・第11回の授業で、各自、自分自身についてと興味のある心理学のトピックについてのプレゼンを行う。その際に使用した発表資料、発表の態度、振り返りも成果発表として評価する。
	②	レ	
	③	レ	
	④	レ	
	⑤		
	⑥		
作品	①		
	②		
	③		
	④		
	⑤		
	⑥		
ポートフォリオ	①		・達成すべき行動目標①～④についての自己評価と、その理由をポートフォリオ内に記述する。期限内に記述し提出する。5点満点で採点する。
	②		
	③		
	④		
	⑤	レ	
	⑥		
その他	①		・毎時間、テーマに合わせて自己の振り返りを入力して提出する。 ・演習の参加状況、授業態度について評価する。
	②		
	③	レ	
	④	レ	
	⑤	レ	
	⑥		

具体的な達成の目安

理想的な達成レベルの目安	標準的な達成レベルの目安
・心理学についての知識を獲得し、授業で取り上げたテーマについて、自ら説明することができる。 ・心理学に関する知識の獲得や、授業での演習を通して、自己理解、他者理解を深め、実際に役立てることができる。 ・心理学の概念や理論を生かして、個人や社会を理解し、新たなアイディアの創出につなげることができる。	・心理学についての知識を獲得し、授業で取り上げたテーマについて、ある程度説明することができる。 ・心理学に関する知識の獲得や、授業での演習を通して、自己理解、他者理解を深めることができる。 ・心理学の概念や理論を生かして、個人や社会を理解し、新たなアイディアの創出につなげたいという意欲を高めることができる。

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
1 ／	・科目ガイダンス ・「心理学とは？」 心理学の特性について理解する。心理学について学習者が持つイメージや関心を明らかにする。 ・授業の振り返り（提出）とアンケート	講義、演習、質疑応答	【復習】 講義内容の振り返り	200
2 ／	・「心理学史」 心理学はいつ誕生し、どのように発展し、現在どうなっているのかを理解し、心理学の功績と課題について考える。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 第2章を読んで、大まかに内容を理解し、授業で深めたいことを明らかにしてくる。 【復習】講義、議論内容の振り返り	200
3 ／	・「感覚と知覚と心理学」 脳のはたらきと、感覚と知覚についての知識を獲得し、自己理解へとつなげる。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 第3章を読んで、大まかに内容を理解し、授業で深めたいことを明らかにしてくる。 【復習】第1回～第3回の講義、議論内容の復習	200
4 ／	・小テスト① ・「パフォーマンス発揮と心理学①」 パフォーマンス発揮に関する心理学の知識やスキルについての理解を深める。 ・授業の振り返り（提出）	小テスト、講義、演習、質疑応答	【予習】 これまでの自己のパフォーマンス発揮に関する記憶を整理する。 【復習】 講義、演習内容の復習	200
5 ／	・「パフォーマンス発揮と心理学②」 パフォーマンス発揮に関する知識やスキルについての理解をもとに、自己のパフォーマンス発揮に向けたメンタルトレーニングメニューを作成する。＊授業内でレポート提出	講義、レポート作成	【予習】 講義内容をもとに、自己の覚醒特性、効果的な方法についての分析を行う。	200
6 ／	・「記憶・学習と心理学」 記憶や学習に関する心理学の知見を理解し、自己の記憶や学習方法について振り返る。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 第4章5章を読んで、大まかに内容を理解し、授業で深めたいことを明らかにしてくる。 【復習】 講義、演習の内容の振り返り	200
7 ／	・「発達と心理学」 人間の発達についての理解を深め、発達において最も必要なものは何かについて議論する。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 教科書第8章を読んで、1シートに内容をまとめ、深めたいことを明らかにしておく。 【復習】 講義、演習の内容の振り返り	200
8 ／	・小テスト② ・「やる気と心理学」 やる気のメカニズムについて理解し、自身や他者のやる気を高める方法について考える。 ・授業の振り返り（提出）	小テスト、講義、演習、質疑応答	【予習】 教科書第7章を読んで、1シートに内容をまとめ、深めたいことを明らかにしておく。 【復習】 第4回～第7回の講義、演習の内容の復習	200
9 ／	・「性格と心理学」 性格に関わる心理学の知見を理解し、自己や他者の理解につなげる。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 性格やパーソナリティという用語やそれを関連する心理学の知見を収集しておく。 【復習】 講義、演習の内容の振り返り	200
10 ／	・「社会と心理学」 社会が人間の心理にどのような影響を与えているのか、また人間の心理が社会にどのような影響を与えているのかを考察する。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 教科書第9章を読んで、1シートに内容をまとめ、深めたいことを明らかにしておく。 【復習】 第8回～第10回の講義、演習内容の復習	200

授業明細表

ＣＬＩＰ学習プロセスについて

一般に、授業あるいは課外での学習では：**「知識などを取り込む」→「知識などをいろいろな角度から、場合によってはチーム活動として、考え、推論し、創造する」→「修得した内容を表現、発表、伝達する」→「総合的に評価を受ける、ＧｏｏｄＷｏｒｋ！」**：のようなプロセス（一部あるいは全体）を繰り返し行いながら、応用力のある知識やスキルを身につけていくことが重要です。このような学習プロセスを大事に行動ください。
※学習課題の時間欄には、指定された学習課題に要する標準的な時間を記載してあります。学修単位科目については、各授業に応じた時間（例えば2単位科目の場合、予習・復習で200分／週）を取るよう努めてください。詳しくは教員の指導に従って下さい。

回数 日付	学習内容	授業の運営方法	学習課題(予習・復習)	時間(分)
11 ／	・小テスト③ ・「自己理解・他者理解と心理学」 性格に関わる心理学の知見をもとに、他者に自分自身についてプレゼンする。また、他者のプレゼンを聞き、他者理解につなげる ・授業の振り返り（提出）	小テスト、資料作成、成果発表	【予習】 プレゼンの事前準備	200
12 ／	・「健康・臨床心理学」① 臨床現場で活躍する専門家から、実際の現場での話を聞き、学びを深める。 ・レポート作成（提出）	特別講義、演習、質疑応答	【予習】 特別講義の資料を事前に確認しておく 【復習】 講義や議論の内容の振り返りをもとにしたレポートの作成（提出）	200
13 ／	・「健康・臨床心理学」② 健康・臨床心理学について理解を深め、自己のストレスマネジメント力の向上につなげる。 ・授業の振り返り（提出）	講義、演習、質疑応答	【予習】 教科書第10章を読んで、1シートにまとめ、大まかに内容を理解し、深めたいことを明らかにしておく。 【復習】 第1回～第13回までの内容の復習	200
14 ／	・これまでの講義内容の確認 ・達成度確認試験（小テスト④）	質疑応答、小テスト④	【復習】 これまでの授業内容について振り返る。	200
15 ／	・自己分析シートの作成 ・総合議論 ・自己点検	演習、議論、自己点検	【復習】 今後の人生に授業での学びを援用する方法について考える。	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIA (a)	1	511300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	REYNOLDS, Stephanie	Kanazawa C: 31.104		Monday 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in discussions, writing, and presentations. Students will apply critical thinking skills and gain knowledge about various topics related to engineering. Additionally, students will learn how to apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Engineering	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to environmental and biological engineering.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, written response, reading/listening comprehension, and/or skill review assessments based on the content of in-class activities and assignments (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given during the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One poster presentation/discussion project (30%) Project includes an outline, delivery & participation in discussion, and self-evaluation/reflection. Feedback will be given during the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction/Reading I Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 1	50
2 /	Theme I: Bioethics (1) Students will review and discuss topics related to the reading or videos. Quiz 1	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 2	50
3 /	Theme I: Bioethics (2) Students will review and discuss topics related to the reading or videos. Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 3	50
4 /	Theme I: Bioethics (3) Students will review and discuss topics related to the reading or videos. Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 4	50
5 /	Theme I: Bioethics (4) Students will review and discuss topics related to the reading or videos. Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities.	50
6 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Outline Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Draft 1	50
7 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Draft 1 Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Reading II Students will participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 1	50
9 /	Theme: Technology & Society (1) Students will review and discuss topics related to the reading or videos. Quiz 5	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 2	50
10 /	Theme: Technology & Society (2) Students will review and discuss topics related to the reading or videos. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 3	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Theme: Technology & Society (3) Students will review and discuss topics related to the reading or videos. *Reaction/Response Essay Returned* Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 4	50
12 /	Theme: Technology & Society (4) Students will review and discuss topics related to the reading or videos. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 5	50
13 /	Poster Presentation/Discussion Preparation Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to participate in a poster presentation/discussion.	Individual, pair, and group work; discussion	Review: Complete Presentation/Discussion Outline	50
14 /	Poster Presentation/Discussion Students will present and discuss ideas, opinions, and research related to the topic in a poster presentation/discussion. Students will complete a written reflection.	Individual, pair, and group work; discussion	Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation evaluation returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIA (b)	1	511300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	REYNOLDS, Stephanie	Kanazawa C: 31.104		Friday 15:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in discussions, writing, and presentations. Students will apply critical thinking skills and gain knowledge about various topics related to engineering. Additionally, students will learn how to apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Engineering	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to environmental and biological engineering.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, written response, reading/listening comprehension, and/or skill review assessments based on the content of in-class activities and assignments (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given during the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One poster presentation/discussion project (30%) Project includes an outline, delivery & participation in discussion, and self-evaluation/reflection. Feedback will be given during the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction/Reading I Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 1	50
2 /	Theme I: Bioethics (1) Students will review and discuss topics related to the reading or videos. Quiz 1	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 2	50
3 /	Theme I: Bioethics (2) Students will review and discuss topics related to the reading or videos. Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 3	50
4 /	Theme I: Bioethics (3) Students will review and discuss topics related to the reading or videos. Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 4	50
5 /	Theme I: Bioethics (4) Students will review and discuss topics related to the reading or videos. Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities.	50
6 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Outline Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Draft 1	50
7 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Draft 1 Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
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10 /	Theme: Technology & Society (2) Students will review and discuss topics related to the reading or videos. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 3	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Theme: Technology & Society (3) Students will review and discuss topics related to the reading or videos. *Reaction/Response Essay Returned* Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 4	50
12 /	Theme: Technology & Society (4) Students will review and discuss topics related to the reading or videos. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 5	50
13 /	Poster Presentation/Discussion Preparation Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to participate in a poster presentation/discussion.	Individual, pair, and group work; discussion	Review: Complete Presentation/Discussion Outline	50
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15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation evaluation returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIA (c)	1	511300	First	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	UTSUNOMIYA, Takako	Kanazawa C: 31.104		Monday 15:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in discussions, writing, and presentations. Students will apply critical thinking skills and gain knowledge about various topics related to engineering. Additionally, students will learn how to apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Engineering	
4	Writing	
5	Presentation	

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Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
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④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
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Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
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Presentations	①		One poster presentation/discussion project (30%) Project includes an outline, delivery & participation in discussion, and self-evaluation/reflection. Feedback will be given during the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given during the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

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3 /	Theme I: Bioethics (2) Students will review and discuss topics related to the reading or videos. Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 3	50
4 /	Theme I: Bioethics (3) Students will review and discuss topics related to the reading or videos. Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading I – Part 4	50
5 /	Theme I: Bioethics (4) Students will review and discuss topics related to the reading or videos. Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities.	50
6 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Outline Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Draft 1	50
7 /	Reaction/Response Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to write a reaction/response essay. *Draft 1 Returned*	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Reading II Students will participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 1	50
9 /	Theme: Technology & Society (1) Students will review and discuss topics related to the reading or videos. Quiz 5	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 2	50
10 /	Theme: Technology & Society (2) Students will review and discuss topics related to the reading or videos. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 3	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Theme: Technology & Society (3) Students will review and discuss topics related to the reading or videos. *Reaction/Response Essay Returned* Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 4	50
12 /	Theme: Technology & Society (4) Students will review and discuss topics related to the reading or videos. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading II – Part 5	50
13 /	Poster Presentation/Discussion Preparation Students will brainstorm ideas and opinions. Students will research related information to support their ideas and learn how to appropriately reference sources to participate in a poster presentation/discussion.	Individual, pair, and group work; discussion	Review: Complete Presentation/Discussion Outline	50
14 /	Poster Presentation/Discussion Students will present and discuss ideas, opinions, and research related to the topic in a poster presentation/discussion. Students will complete a written reflection.	Individual, pair, and group work; discussion	Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation evaluation returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIB (a)	1	511400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	REYNOLDS, Stephanie	Kanazawa C: 31.104		Monday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in group discussions, presentations, and in writing. Students will apply critical thinking skills and understand content related to the theory of knowledge. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Knowledge	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: Van de Lagemaat, Richard. (2015). Theory of Knowledge for the IB Diploma, 2nd Ed. Cambridge.
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to areas of knowledge.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, written response, reading/listening comprehension, and/or review assessments based on the content of in-class activities and assignments (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given in the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One jigsaw presentation project (30%) Project includes an outline, delivery of presentation, preparation of supplementary materials, and self-evaluation/reflection. Feedback will be given in the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
2 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 1 Quiz 1	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
3 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 2 Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
4 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 3 Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
5 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 4 Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
6 /	Students will review, discuss, and brainstorm ideas and opinions. Students will research related information to support their ideas. Theme: Cultural perspectives on knowledge 5 Quiz 5	Individual, pair, and group work; discussion	Review: Complete outline and Reaction/Response Essay Draft 1	50
7 /	Students will brainstorm ideas and opinions. Students will research and learn how to appropriately reference sources to write a reaction/response essay.	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Students will participate in writing conferences. Students will create teams, choose topics, and participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
9 /	Students will research information related to their topic and learn how to appropriately reference sources for a presentation. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Start presentation outline	50
10 /	Students will continue to research and organize presentation contents. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Complete presentation outline	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Students will prepare presentation slides and supplementary materials for their presentation. Theme: Areas of Knowledge *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Review: Complete presentation slides and supplemental materials Reading – Various articles, book/web resources	50
12 /	Jigsaw Presentation/Discussion Theme: Math, Natural science, Human science Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
13 /	Jigsaw Presentation/Discussion Theme: Arts, History, Ethics Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
14 /	Jigsaw Presentation/Discussion Theme: Religious and Indigenous knowledge Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation/Discussion Project Returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIB (b)	1	511400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	REYNOLDS, Stephanie	Kanazawa C: 31.104		Monday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in group discussions, presentations, and in writing. Students will apply critical thinking skills and understand content related to the theory of knowledge. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Knowledge	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: Van de Lagemaat, Richard. (2015). Theory of Knowledge for the IB Diploma, 2nd Ed. Cambridge.
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to areas of knowledge.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, written response, reading/listening comprehension, and/or review assessments based on the content of in-class activities and assignments (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given in the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One jigsaw presentation project (30%) Project includes an outline, delivery of presentation, preparation of supplementary materials, and self-evaluation/reflection. Feedback will be given in the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
2 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 1 Quiz 1	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
3 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 2 Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
4 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 3 Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
5 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 4 Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
6 /	Students will review, discuss, and brainstorm ideas and opinions. Students will research related information to support their ideas. Theme: Cultural perspectives on knowledge 5 Quiz 5	Individual, pair, and group work; discussion	Review: Complete outline and Reaction/Response Essay Draft 1	50
7 /	Students will brainstorm ideas and opinions. Students will research and learn how to appropriately reference sources to write a reaction/response essay.	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Students will participate in writing conferences. Students will create teams, choose topics, and participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
9 /	Students will research information related to their topic and learn how to appropriately reference sources for a presentation. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Start presentation outline	50
10 /	Students will continue to research and organize presentation contents. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Complete presentation outline	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Students will prepare presentation slides and supplementary materials for their presentation. Theme: Areas of Knowledge *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Review: Complete presentation slides and supplemental materials Reading – Various articles, book/web resources	50
12 /	Jigsaw Presentation/Discussion Theme: Math, Natural science, Human science Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
13 /	Jigsaw Presentation/Discussion Theme: Arts, History, Ethics Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
14 /	Jigsaw Presentation/Discussion Theme: Religious and Indigenous knowledge Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation/Discussion Project Returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience.

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S General Required	Comprehensive English IIB (c)	1	511400	Second	Lecture Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	UTSUNOMIYA, Takako	Kanazawa C: 31.104		Monday 15:00-17:00

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Critical Thinking	In this course, students will be able to further improve English communication skills while sharing opinions in group discussions, presentations, and in writing. Students will apply critical thinking skills and understand content related to the theory of knowledge. Additionally, students will learn and apply effective and appropriate communication strategies in discussions, presentations, and writing.
2	Communication	
3	Knowledge	
4	Writing	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Students will prepare and participate in English discussions using the language skills that are already known.
Students will practice and apply new strategies for effective communication in discussions, presentations, and writing.
Students will write one reaction/response essay and prepare one collaborative, research-based presentation.

It will be important for students to share their own opinions in relation to information from a variety of sources. Therefore, students will learn how to appropriately reference and cite sources.
Students should be prepared with a binder or folder to keep handouts, writing tools for in-class work, and laptop computers for preparing presentations, researching related information, downloading class materials, and submitting online assignments.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: None (Handouts)
Reference books: Van de Lagemaat, Richard. (2015). Theory of Knowledge for the IB Diploma, 2nd Ed. Cambridge.
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Intermediate English ability
Basic computer skills

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Students will be able to share opinions and ideas through discussions in English.
②	h	Students will be able to think critically about various topics related to areas of knowledge.
③	g	Students will be able to write a reaction/response essay.
④	c	Students will be able to make presentations in English.
⑤	c	Students will be able to apply effective communication strategies in presentations and writing.
⑥	b	Students will be able to reference and cite sources appropriately.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	20	30	30	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	5	0	5	0	25
	Ability to think, reason and create	0	5	10	5	0	5	0	25
	Collaboration and leadership	0	0	0	10	0	5	0	15
	Announcement / Expression / Communication	0	5	10	10	0	0	0	25
	Attitude and motivation for learning	0	5	0	0	0	5	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		Several vocabulary, written response, reading/listening comprehension, and/or review assessments based on the content of in-class activities and assignments (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Reports	①		One reaction/response essay (30%) Essay includes an outline, first draft, 2 writing conferences, and final draft. Feedback will be given in the next class session.
	②	✓	
	③	✓	
	④		
	⑤	✓	
	⑥	✓	
Presentations	①		One jigsaw presentation project (30%) Project includes an outline, delivery of presentation, preparation of supplementary materials, and self-evaluation/reflection. Feedback will be given in the next class session.
	②	✓	
	③		
	④	✓	
	⑤	✓	
	⑥	✓	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	In-class or assignment handouts for preparation and review of discussion activities (20%) Feedback will be given in the next class session.
	②	✓	
	③		
	④		
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Professional-level, academic writing and presentations. Discuss 100% in fluent English.	Comprehensible writing and presentations. Discussions mostly in English.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction Students will be introduced to the syllabus and contents of the course. Students will participate in brainstorming and background building communication activities.	Brainstorming as a pre-reading technique, individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
2 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 1 Quiz 1	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
3 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 2 Quiz 2	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
4 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 3 Quiz 3	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
5 /	Students will review and discuss topics related to the theme. Theme: Cultural perspectives on knowledge 4 Quiz 4	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
6 /	Students will review, discuss, and brainstorm ideas and opinions. Students will research related information to support their ideas. Theme: Cultural perspectives on knowledge 5 Quiz 5	Individual, pair, and group work; discussion	Review: Complete outline and Reaction/Response Essay Draft 1	50
7 /	Students will brainstorm ideas and opinions. Students will research and learn how to appropriately reference sources to write a reaction/response essay.	Individual, pair, and group work; discussion	Review: Complete Reaction/Response Essay Final Draft due Class 9	50
8 /	Students will participate in writing conferences. Students will create teams, choose topics, and participate in brainstorming and background building communication activities.	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
9 /	Students will research information related to their topic and learn how to appropriately reference sources for a presentation. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Start presentation outline	50
10 /	Students will continue to research and organize presentation contents. Theme: Areas of Knowledge	Individual, pair, and group work; discussion	Review: Complete presentation outline	50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Students will prepare presentation slides and supplementary materials for their presentation. Theme: Areas of Knowledge *Reaction/Response Essay Returned*	Individual, pair, and group work; discussion	Review: Complete presentation slides and supplemental materials Reading – Various articles, book/web resources	50
12 /	Jigsaw Presentation/Discussion Theme: Math, Natural science, Human science Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 6	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
13 /	Jigsaw Presentation/Discussion Theme: Arts, History, Ethics Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 7	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Reading – Various articles, book/web resources	50
14 /	Jigsaw Presentation/Discussion Theme: Religious and Indigenous knowledge Students will deliver presentations and lead discussions/activities based on supplemental materials connected to their topic of research. Quiz 8	Individual, pair, and group work; discussion	Review: Complete the worksheet based on the class activities. Review: Complete written reflection	50
15 /	Self-Evaluation Students will be given oral and written feedback both overall and individually on their work. Students will also be encouraged to share their feedback about the course. *Presentation/Discussion Project Returned*	Individual, pair, and group work; discussion		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design V A	2	520400	First	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	FUJISHIMA, Satoshi / KUSHIMA, Yoshihiro	Kanazawa C		Wednesday 16:50-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Expertise	Our goal is to develop students who will have a bird's eye view of engineering and be able to lead projects as leaders in the future. To this end, the fifth grade students aim to improve their knowledge, skills, theoretical thinking, judgment, problem-solving process, technical communication skills, and presentation skills through practical training.
2	Theoretical thinking/Decision making	
3	Problem-solving process	
4	Information gathering and analysis	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Under the advice of faculty members, students decide on a "theme" and engage in project activities, applying their knowledge in specialized fields such as mechanical engineering, information engineering, and business. In addition to their previous knowledge and experience, and how to collect and share information necessary for the progress of the project, students will acquire new knowledge through research through practical training. Then, activities based on logical thinking will be implemented.
The flow of the project will differ slightly depending on the main theme, but basically, the project will proceed in the following manner." Discover the problem → Understand the current situation → Determine the problem based on problem cause analysis and structural analysis → Set preconditions and achievement conditions for the solution → Determine the solution plan."
Students must submit weekly reports. In addition, they must submit a final report at the end of the semester describing the progress of the project.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	10	5	0	10	0	25
	Ability to think, reason and create	0	0	10	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	0	10	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Design and plan the research project by oneself. Conduct research and development activities smoothly according to the research project plan. Present concrete results that are recognized as academically or technically significant, effective, and practical.	Design and plan the research project with the support of Instructor. Conduct research and development activities in accordance with the research project plan. Present concrete results along with technical innovations.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1-2 /	Project activity / review	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
3-4 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
5-6 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
7-8 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
9-10 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
11-12 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
13-14 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
15-16 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
17-18 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
19-20 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21-22 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
23-24 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
25-26 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
27-28 /	Project activity / review	Activity / Explanation / Report	Making weekly report Prepare for the presentation and the report	60
29-30 /	Presentation	Presentation	Prepare for the presentation and the report	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Required	Engineering Design V B	2	520500	Second	Experiment/Practice Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	FUJISHIMA, Satoshi / KUSHIMA, Yoshihiro	Kanazawa C		Wednesday 16:50-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Expertise	Our goal is to develop students who will have a bird's eye view of engineering and be able to lead projects as leaders in the future. To this end, the fifth grade students aim to improve their knowledge, skills, theoretical thinking, judgment, problem-solving process, technical communication skills, and presentation skills through practical training.
2	Theoretical thinking/Decision making	
3	Problem-solving process	
4	Information gathering and analysis	
5	Presentation	

Course Description and Expectations for Students (10.5pt)

Under the advice of faculty members, students decide on a "theme" and engage in project activities, applying their knowledge in specialized fields such as mechanical engineering, information engineering, and business. In addition to their previous knowledge and experience, and how to collect and share information necessary for the progress of the project, students will acquire new knowledge through research through practical training. Then, activities based on logical thinking will be implemented.
The flow of the project will differ slightly depending on the main theme, but basically, the project will proceed in the following manner." Discover the problem → Understand the current situation → Determine the problem based on problem cause analysis and structural analysis → Set preconditions and achievement conditions for the solution → Determine the solution plan."
Students must submit weekly reports. In addition, they must submit a final report at the end of the semester describing the progress of the project.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	40	40	0	20	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	10	5	0	5	0	20
	Ability to think, reason and create	0	0	20	5	0	5	0	30
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	0	10	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Design and plan the research project by oneself. Conduct research and development activities smoothly according to the research project plan. Present concrete results that are recognized as academically or technically significant, effective, and practical.	Design and plan the research project with the support of Instructor. Conduct research and development activities in accordance with the research project plan. Present concrete results along with technical innovations.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1-2 /	Project activity / review	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
3-4 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
5-6 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
7-8 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
9-10 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
11-12 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
13-14 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
15-16 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
17-18 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
19-20 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21-22 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
23-24 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
25-26 /	Project activity / review	Activity / Explanation / Report	Making weekly report	60
27-28 /	Project activity / review	Activity / Explanation / Report	Making weekly report Prepare for the presentation and the report	60
29-30 /	Presentation	Presentation	Prepare for the presentation and the report	60

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Elective	Engineering Mathematics	2	522000	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	KUSHIMA, Yoshihiro	31.117		16:50 ~ 17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Complex numbers	Students will: (1) Review complex numbers for frequency response (2) Learn Laplace transforms for solving linear differential equations (3) Learn inverse Laplace transforms for solving linear differential equations (4) Learn transfer function for frequency analysis (5) Learn block diagrams
2	Laplace transforms	
3	Inverse Laplace transforms	
4	Transfer functions	
5	Block diagrams	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a basic course in control engineering. We will cover the following topics:

1. Complex numbers
2. Laplace transforms
3. Inverse Laplace transforms
4. Transfer functions
5. Block diagrams

Students are expected to understand the meaning of the analysis method for control systems and expected to determine the stability of a control system.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Schaum's Outline of Advances Mathematics for Engineers and Scientist (McGraw Hill)
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Sufficient mathematical calculation skills.
Basic knowledge of differential and integral calculus.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Be able to Calculate complex numbers.
②	h, i	Be able to use basic Laplace transforms.
③	h, i	Be able to solve linear differential equations with inverse Laplace transforms.
④	h, i	Be able to use transfer functions.
⑤	h, i	Be able to understand block diagrams.
⑥		

Evaluation Criteria

	Evaluation Method / Criteria and Ratio	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	35	20	35	0	0	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	10	0	0	0	0	35
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	15	0	0	0	5	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	A semester final examination is given, as specified in the course schedule, to evaluate your degree of achievement comprehensively.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①	✓	Several 50-minute quizzes are given to improve comprehension.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Students will prepare and submit reports to demonstrate their understanding of assigned topics and issues.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	Students will be evaluated based on learning efforts in lectures and practices and report submission.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Can show physical phenomena as differential equations and represent them as dynamic systems for analyzing physical phenomena. Discriminate what is necessary in characterizing physical phenomena and analyze dynamic systems appropriately.	Be able to represent physical phenomena presented as differential equations as dynamic systems for analysis. Understand the matters that characterize physical phenomena and be able to analyze dynamic systems appropriately.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction Overview of System Control Complex numbers Trigonometric Functions	Guidance Lecture and Q&A	Understand the objectives of the course	200
2 /	Laplace Transforms (1)	Lecture and Q&A	Review lecture content and assignments	200
3 /	Laplace Transforms (2)	Lecture and Q&A	Review lecture content and assignments	200
4 /	Inverse Laplace Transforms	Lecture and Q&A	Review lecture content and assignments	200
5 /	State-Space Representation	Lecture and Q&A	Review lecture content and assignments	200
6 /	Review for Quiz 1	Review	Prepare for quiz	200
7 /	Quiz 1	Quiz	Review	200
8 /	Quiz 1 Return Transfer Function (1)	Lecture and Q&A	Review lecture content and assignments	200
9 /	Transfer Function (2)	Lecture and Q&A	Review lecture content and assignments	200
10 /	Transfer Function (3)	Lecture and Q&A	Review lecture content and assignments	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Block Diagram (1)	Lecture and Q&A	Review lecture content and assignments	200
12 /	Block Diagram (2)	Lecture and Q&A	Review lecture content and assignments	200
13 /	Review for Quiz 2	Review	Prepare for quiz	200
14 /	Quiz 2	Quiz	Review	200
15 /	Quiz 2 Return Review for Final Exam	Review	Prepare for the final exam	200
16 /	Final Exam	Exam	Review all materials	
17 /	Returning Final Exam Results	Review Self-evaluation		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Elective	Applied Physics I	2	522300	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	HAN, Justin	Kanazawa C 31.119		Wednesday 4:50-5:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Rigid Body Dynamics	Physics forms the foundation for the study of specialized engineering subjects. Students in this course will study about the various forces acting on planar rigid bodies and how those forces influence the motions of the bodies.
2	FBD and KD	
3	Kinematics	
4	Kinetics	
5	Equations of Motion	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

The progression of this course is as follows:

1. Planar Kinematics
   - Absolute motion
   - Relative motion
2. Planar Kinetics
   - Inertia
   - Equations of Motion

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Engineering Mechanics: Dynamics, SI Edition (English Edition), WILEY ISBN-13: 978-1292088723
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

An understanding of:

- basic physics concepts
- static forces acting on rigid bodies

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Be able to describe and create equations of motion for particles
②	g, h, i	Be able to explain the absolute and relative motions of rigid bodies.
③	g, h, i	Be able to break down dynamic systems into free body and kinetic diagrams.
④	g, h, i	Be able to explain the effect of forces on the motion of rigid bodies.
⑤	g, h, i	Be able to explain the concept of inertia and its influence on motion.
⑥	g, h, i	Be able to create equations of motion for systems of rigid bodies in motion.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	20	0	0	0	0	50
	Ability to think, reason and create	10	5	10	0	0	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	10	5	10	0	0	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be a final exam at the end of the semester that will test you on the important concepts introduced throughout the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be two 50-minute quizzes that will test you on the concepts introduced in the weeks before the quiz. For these quizzes you will be allowed to prepare one sheet of notes for reference. Makeup quizzes will not be allowed without a valid excuse.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	There will be homework for every topic introduced. Some time will be allotted during class to review the homework assignments, but you will be need to spend time outside of class to complete them. Late home will be accepted after their submission deadline at a -10% late penalty per school day up to a max of 50%. However, any homework that is copied will result in a 0.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Able to translate the motion of particles into mathematical equations. - Able to explain the concepts of absolute and relative motions of rigid bodies and apply them to real-world situations. - Able to apply Newton's 2nd Law of Motion to establish detailed models of rigid bodies in motion. - Able to calculate and analyze the effect of forces on rigid bodies - Able to apply inertia into mathematical expressions - Able to set up and apply equations of motion for various real-world situations.	- Able to understand the translational and circular motion of particles - Able to understand the concepts of absolute and relative motions of rigid bodies. - Able to apply Newton's 2nd Law of Motion to create FBD and KD. - Able to explain the effect of forces on rigid bodies - Able to explain the concept of inertia - Able to explain the analyze the equations of motion for systems of rigid bodies

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance and Review of Statics Students learn about the principles of dynamics and review prerequisite knowledge of statics.	Lecture	Review: Complete Assignment	200
2 /	Introduction to Kinematics Students review about the prerequisite knowledge of simple movement of a particle.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
3 /	Introduction to Kinetics Students review the prerequisite knowledge of Free Body Diagrams (FBD) and Newton's 1st Law of Motion.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
4 /	Introduction to Kinetics Students review the prerequisite knowledge of Free Body Diagrams (FBD) and Moments of a Force.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
5 /	Introduction to Dynamics (1) Students learn about Kinetic Diagrams (KD) and Newton's 2nd Law of Motion.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
6 /	Introduction to Dynamics (2) Students learn about Kinetic Diagrams (KD) and Newton's 2nd Law of Motion.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
7 /	Midterm Test	Quiz and Review	Preview: Read Assigned Chapters Review: Complete Assignment	200
8 /	Introduction to Planar Kinematics (1) Students learn about the rotation about a fixed axis of a planar rigid body.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
9 /	Introduction to Planar Kinematics (2) Students learn about relative motion of a planar rigid body.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
10 /	Introduction to Planar Kinematics (3) Students learn about the Instantaneous Center of Zero Velocity.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Introduction to Planar Kinematics (4) Students learn about relative acceleration of rigid bodies.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
12 /	Introduction to Kinetics (1) Students learn about the Mass Moment of Inertia of composite bodies.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
13 /	Introduction to Kinetics (2) Students learn about the effect of forces and moments on a body rotating about a fixed axis.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
14 /	End of Term Test	Quiz and Review	Preview: Read Assigned Chapters Review: Complete Assignment	200
15 /	Review Students review their understanding of the introduced concepts.	Lecture	Preview: Prepare review questions Review: Study for the final exam	200
16 /	Final Exam			
17 /	Returning Final Exam Results			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Elective	Applied Physics II	2	522400	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	HAN, Justin	Kanazawa C 31.119		Wednesday 4:50-5:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Work and Energy	Physics forms the foundation for the study of advanced concepts in specialized engineering subjects. Any body in space having an amount of energy experiences vibration. Students in this course will learn to identify and model the vibrational motion of rigid bodies.
2	Rigid Body Dynamics	
3	Degrees of Freedom	
4	Vibration	
5	Damping	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

The progression of this course is as follows:

1. Planar Kinetics – Work and Energy
2. Undamped Free Vibration
3. Undamped Forced Vibration
4. Damped Free Vibration
5. Damped Forced Vibration

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Engineering Mechanics: Dynamics, SI Edition (English Edition), WILEY ISBN-13: 978-1292088723

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

An understanding of:

- basic physics concepts
- static forces acting on rigid bodies
- dynamic forces acting on rigid bodies

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Be able to analyze the work and energy of rigid bodies in motion.
②	g, h, i	Be able to explain undamped free vibration
③	g, h, i	Be able to explain undamped forced vibration
④	g, h, i	Be able to explain damped free vibration
⑤	g, h, i	Be able to explain damped forced vibration
⑥	g, h, i	Be able to explain the mathematical models of vibrational systems

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		40	20	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	10	20	0	0	0	0	50
	Ability to think, reason and create	10	5	10	0	0	0	0	25
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	10	5	10	0	0	0	0	25

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be a final exam at the end of the semester that will test you on the important concepts introduced throughout the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be two 50-minute quizzes that will test you on the concepts introduced in the weeks before the quiz. For these quizzes you will be allowed to prepare one sheet of notes for reference. Makeup quizzes will not be allowed without a valid excuse.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	There will be homework for every topic introduced. Some time will be allotted during class to review the homework assignments, but you will be need to spend time outside of class to complete them. Late home will be accepted after their submission deadline at a -10% late penalty per school day up to a max of 50%. However, any homework that is copied will result in a 0.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Able to apply the concepts of work and energy of rigid bodies to real world situations. - Able to create and analyze mathematical models of undamped, free vibrational systems. - Able to create and analyze mathematical models of undamped, forced vibrational systems. - Able to create and analyze mathematical models of damped, free vibrational systems. - Able to create and analyze mathematical models of damped, forced vibrational systems. - Able to explain the effect of masses, forces, and damping on the behavior of vibration systems.	- Able to identify the effect of work and energy on rigid bodies. - Able to identify mathematical models of undamped, free vibration systems. - Able to identify mathematical models of undamped, forced vibration systems. - Able to identify mathematical models of damped, free vibration systems. - Able to identify mathematical models of damped, forced vibration systems. - Able to identify the behaviors of each type of vibration

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance and Review Students learn about the concept of vibration and review the principles of variable forces.	Lecture	Review: Complete Assignment	200
2 /	Introduction to Planar Kinetics (6) Students learn about the work and energy of a rigid body.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
3 /	Introduction to Planar Kinetics (7) Students learn about the work and energy of a rigid body	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
4 /	Introduction to Vibrations Students learn about the basics of vibrations engineering.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
5 /	Introduction to Undamped Free Vibration Students learn about undamped free vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
6 /	Review	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
7 /	Midterm Test	Quiz and Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
8 /	Introduction to Undamped Forced Vibration Students learn about undamped forced vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
9 /	Introduction to Undamped Forced Vibration Students learn about undamped forced vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
10 /	Introduction to Damped Free Vibration Students learn about damped free vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Introduction to Damped Free Vibration Students learn about damped free vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
12 /	Introduction to Damped Forced Vibration Students learn about damped forced vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
13 /	Introduction to Damped Forced Vibration Students learn about damped forced vibration.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
14 /	End of Term Test	Quiz and Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
15 /	Review	Lecture	Preview: Prepare review questions Review: Study for the final exam	200
16 /	Final Exam			
17 /	Returning Final Exam Results			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Mechanics of Materials I	2	540300	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	EVANS, Davis	31.309		Friday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Load	Students will: (1) Understanding the materials for machine parts. (2) Learn the method of load analysis and free-body-diagram. (3) Understanding the axial, direct shear and torsional loading. (4) Learn the Mohr's circle that represents combined stresses.
2	Free body diagram	
3	Stresses	
4	Tensile and compression	
5	Bending	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 40 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

This is a course on the basics of mechanics of materials. We will cover the following topics:
(1) Characteristics of materials for machine parts
Cast iron, steel, and nonferrous alloy. Tensile strength of materials, Stress-strain diagram.
(2) Methods of load analysis
Drawing the FBD (free-body-diagram)
(3) Static body stresses
Axial loading, direct shear loading, torsional loading, and pure bending loading.
Combined stresses and Mohr's circle.
Thermal stresses.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Fundamentals of Machine Components Design, 7th Edition, Asia Edition
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Know how to use a scientific calculator.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Be able to explain work, energy and power.
②	h	Be able to explain the characteristics of materials for machine parts.
③	h	Be able to draw the free-body-diagram.
④	h,i	Be able to find magnitude of stresses caused by axial loading, direct shear loading and torsional loading.
⑤	h	Be able to explain the relationship between pure bending loading and stresses in the beam.
⑥	h,i	Be able to draw the Mohr's circle under the condition applied combined stresses.

Evaluation Criteria

	Evaluation Method / Criteria and Ratio	Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
	Total Evaluation Ratio	60	40	0	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	30	20	0	0	0	0	0	50
	Ability to think, reason and create	30	20	0	0	0	0	0	50
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Descriptive tests are given on the content of the lectures: (1) Fundamentals of load analysis (2) Characteristics of materials for machine parts (3) Static body stresses
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	Descriptive quizzes given on the after of sections: (1) Free-body-diagram (2) Characteristics of materials
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Calculate the magnitude of power, work and energy. (2) Understand the method of drawing FBD clearly and draw it. (3) Understand the characteristics of ferrous and nonferrous alloy for machine parts. (4) Understand diagram of stress and strain, and explain relationship between stress and strain. (5) Understand static body stresses, axial, shear and torsional loading clearly. (6) Understand relationship between pure bending loading and stresses clearly.	(1) Calculate the magnitude of power, work and energy. (2) Understand the method of drawing FBD. (3) Understand the characteristics of ferrous alloy for machine parts. (4) Understand diagram of stress and strain. (5) Understand difference between axial and shear loading. (6) Understand pure bending loading.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction An overview of the subject Basics of mechanics of materials	Lecture and Q&A Self-check	Understanding the course objectives Confirm the course schedule	200
2 /	Work, energy and power	Lecture and Q&A Self-check	Preview: Reading textbook of physics Review: Solving problems on the textbook	40 160
3 /	Introduction of load analysis	Lecture and Q&A Self-check	Preview: Reading textbook of physics Review: Solving problems on the textbook	40 160
4 /	Drawing the FBD (free-body-diagram)	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
5 /	Introduction of materials	Quiz Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
6 /	Characteristics of ferrous materials Cast iron Carbon steel	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
7 /	Characteristics of nonferrous alloy materials Aluminum alloy Copper alloy	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
8 /	Introduction of static body stresses Axial loading Direct shear loading	Quiz Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
9 /	Torsional loading	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
10 /	Basics of pure bending loading	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Relationship between pure bending loading and stresses	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
12 /	Combined stresses Tensile and compressional stresses Shear stresses	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
13 /	Drawing the Mohr’s circle	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
14 /	Thermal stresses	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
15 /	Integrated learning	Lecture and Q&A Self-check	Preview: Review: Confirming the notebook for this course	200
16 /	Final examination	Descriptive test Self-check	Self-evaluation	
17 /	Review	Self-check Review		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Mechanics of Materials II	2	540400	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	EVANS, Davis	31.309		Friday 16:30-17:30

Course Objectives

	Keywords (10.5pt)	Learning Objectives (10.5pt)
1	Stresses	Students will: (1) Understanding the relationship between stress and strain. (2) Learn the method of determination of deflection of the beam. (3) Understanding failure theory. (4) Learn the characteristics of impact, fatigue and surface damage.
2	Strain	
3	Beam deflection	
4	Column Buckling	
5	Failure theory	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 40 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

This is a course on the application of mechanics of materials. We will cover the following topics:
(1) Relationship between load and deflection
Stress-strain diagram, strain definition, and characteristics of cross section.
(2) Methods of determination of the beam deflection
Calculation of cross-sectional parameters and deflection of the beam.
(3) Failures
Column buckling
Failure theory
Impact, fatigue, surface damages

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: Fundamentals of Machine Components Design, 7th Edition, Asia Edition
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Know how to use a scientific calculator.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Be able to explain strain definition.
②	h	Be able to explain the characteristics of cross-section.
③	h,i	Be able to determine the magnitude of deflection of beam.
④	h	Be able to explain column buckling.
⑤	h	Be able to explain failure theory.
⑥	h	Be able to explain fatigue and surface damage.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		60	40	0	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	30	20	0	0	0	0	0	50
	Ability to think, reason and create	30	20	0	0	0	0	0	50
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	0	0	0	0	0	0

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	Descriptive tests are given on the content of the lectures: (1) Strain definition (2) Characteristics of cross-sectional shape (3) Deflection of the beam under bending moment
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①		Descriptive quizzes given on the after of sections: (1) Deflection of the beam (2) Column buckling
	②		
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Understand strain definition and measurement method. (2) Understand elastic stress-strain relationships and three-dimensional Mohr's circles. (3) Understand the beam deflection and determine the magnitude of deflection. (4) Understand the column buckling and determine the magnitude of buckling conditions. (5) Understand classification of failure type and fracture mechanisms clearly.	(1) Understand strain definition and measurement method. (2) Understand basics of elastic stress-strain relationships. (3) Understand basics of the beam deflection. (4) Understand basics of the column buckling. (5) Understand some basic fracture mechanisms.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction An overview of the subject Basics of mechanics of materials	Lecture and Q&A Self-check	Understanding the course objectives Confirm the course schedule	200
2 /	Strain definition Analysis of strain	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	40 160
3 /	Beam deflection (1) Elastic stress-strain relationships and Mohr’s circle	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	40 160
4 /	Beam deflection (2) Characteristics of cross-sectional shapes of the beam	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
5 /	Beam deflection (3) Deflection and spring rate in case of simple beam	Quiz Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
6 /	Beam deflection (4) Determining elastic deflections (1)	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
7 /	Beam deflection (5) Determining elastic deflections (2)	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
8 /	Column buckling (1) Theories	Quiz Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
9 /	Column buckling (2) Determining the magnitude of buckling load	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
10 /	Failure theory (1) Types of failure	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Failure theory (2) Factor of safety Reliability	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
12 /	Impact	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
13 /	Fatigue	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
14 /	Surface damage	Lecture and Q&A Self-check	Preview: Reading textbook Review: Solving problems on the textbook	60 140
15 /	Integrated learning	Lecture and Q&A Self-check	Preview: Review: Confirming the notebook for this course	200
16 /	Final examination	Descriptive test Self-check	Self-evaluation	
17 /	Review	Self-check Review		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Measurement Engineering	2	541100	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	HUSSIEN, Alaa	Kanazawa C 31-124		(Mon.-Fri.) 16:30-17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Units- Dimensions- Standard deviation	Students will be able to find the units and dimensions of any physical quantity, define terms such as accuracy, precision, mean, median, etc., wring block gauge, set dial gauges to detect run outs, fabricate Roberval balances, use strain gauges to measure the weight of objects, set thermistors and LM35 to measure temperatures, use encoders to measure the speed of a shaft, design and make a photo sensor to measure the displacement in a step of 100μm.
2	Strain gauge-Whetstone bridge	
3	Thermistors-Thermocouple	
4	Rotary encoders-Shaft speed	
5	Photo sensor- Displacement	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes. First, students study the basic units and dimensions and learn how to find the units and dimensions of any physical quantity. Then, know the definition of some measurement terms such as accuracy, precision, mean, median, error, etc. Students will learn how to calculate the standard deviation of a set of data. In addition, they will learn function approximation using least square method. The second part will be project based learnt topics, as students will do experiments to measure some quantities using existed devices or design and fabricate their own devices to measure other quantities. First, they use block and dial gauge to detect runouts of machines. Second, fabricate a Roberval balance to measure the mass and compare it with the normal equal-arm balance. Second, they understand the structure of the strain gauge sensor and its experimental setup to measure weights of objects then do the experiment. Third, students will learn about many devices such as thermistor, thermostat, thermocouple and LM35. They will do experiments to measure the temperature of water using different sensors interfaced with Arduino microcontroller. Fourth, students study about the rotary encoders and then do an experiment to measure the speed and the direction of rotation of a dc motor shaft. Lastly, students learn about displacement sensors and then make a sensor to measure the displacement of with a resolution of 100μm.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books: "Theory and Design for Mechanical Measurements" *Richard* S. *Figliola*, 6th Ed. ISBN: 978-1-118-88127-9

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students should master the basics of electric circuits such as Ohm's law and voltage divider rules. Students should know how to use laser cutters, 3-D printers, electric saw, drilling machines, milling machines and aware of the safety regulations of those machines. Also, they should set up and use Arduino microcontroller and create, compile and run a C^{++} code. Students should know well how to use some tools such as Vernier caliper, micrometer, multimeter, power supply, Oscilloscope.

No.	Program Objectives	Target Abilities for Students (9pt)
①	d	Able to find the units and dimensions of any physical quantities and understand many measurements terms
②	d,e	Detect the runouts of machines within a resolution of 1μm using block and dial gauges.
③	d,b,e	Understand the design features of Roberval balance and fabricate it-Measure the weights by strain gauges.
④	d,b,e	Set up experiments to measure the temperature using a thermistor and LM35 interfaced with Arduino μC.
⑤	d,b,e	Set up experiments to measure the speed and rotation direction of a dc motor shaft using a rotary encoder.
⑥	d,b,e	Make a photo sensor by using a photo diode and an LED and measure the displacement of a shutter.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	20	20	0	30	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	10	10	10	0	0	0	0	30
	Ability to think, reason and create	10	10	5	0	10	0	0	35
	Collaboration and leadership	0	0	0	0	10	0	0	10
	Announcement / Expression / Communication	0	0	0	0	5	0	0	5
	Attitude and motivation for learning	10	0	5	0	5	0	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be one exam, the final exam which will cover materials studied in the whole semester. It is worth 30% of your final grade. It is crucial that you study all your notes, worksheets before the exam.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	After the 8th class, there will be a mid-term test. It will cover the material studied in the previous 8 classes. It is worth 20% of the final grade.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Every class the students are given a worksheet contains questions and problems to be solved as a homework. The worksheet of each class should be submitted at the beginning of the next class. The grading criteria will be based on content acquisition (10%) and quality of work through showing clear steps on how students get the answers (10%). The homework equates 20% of the total score.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	The work will be done either individually or in groups. The grading criteria is explained in the work rubric and will be based on the following: 1-Design and /or implementation: How did each student or group could conceive the best design and how they could set up the experiment or fabricate the device? (10%) 2-Operation: How reliable is the product or how good are the results and how could they find and figure out any problem arises? (10%) 3-Report: each student should submit a report to describe the work and show the results. (10%)
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
1-Students are able to conceive the best design and experiment set up to measure different quantities. 2-Measure the weight, temperature, speed, displacement, and analyze the results. 3-Create and execute C++ codes and set up Arduino µc to be used for measuring the temperature. 4-Use the technology such CAD software, laser cutter and 3-D printer to make the parts of the products. 5-Determine and figure out any problem arises during the experiment.	1-Students are able to make a design and an experiment set up to measure different quantities. 2-Measure the weight, temperature, speed, displacement, and ask for help to evaluate the results. 3-able to set up Arduino µc and write the C++ code then execute it to display the results. 4-Use some technology such as laser cutters and 3-D printers.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course guidance Introduction to measurement The units of physical quantities Dimensional analysis of physical quantities	Course outlines and class style. A lecture demonstrates the topic Solving a worksheet.	Read the course syllabus and review the notes of the lecture. Complete solving the questions of the worksheet.	200
2 /	Measurements terms definitions. Measurement error and error propagation.	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
3 /	Standard deviation Z- score	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
4 /	Function approximation. Taylor series-Least square method.	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
5 /	Mass measurement (1). Equal-arm balance- Roberval balance.	A lecture demonstrates the topic. Demonstration of the equal-arm balance Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
6 /	Mass measurement (2) Roberval balance design and implementation Area Measurement using Plainmeter	Hands-on session for implementation.	Review materials of last class. Make the report. Prepare for the next class.	200
7 /	Force measurement (1) Introduction to sensors (strain gauge sensor).	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
8 /	Force Measurement (2) An experiment of measuring the weight of an object.	Hands-on session.	Review materials of last class. Make the report. Study for the mid-term test.	200
9 /	Mid-term test Length measurement.	Test on the contents of class #1- class #8 A lecture demonstrates the topic. Solving a worksheet.	Review materials of all classes. Do the assignments. Prepare for the next class.	200
10 /	Temperature measurement (1) Introduction to temperature sensors (Thermostat-Thermistor-Thermocouples)	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Temperature measurement (2) An experiment of measuring the temperature of some water using different sensors	Hands-on session.	Review materials of last class. Make the report Prepare for the next class.	200
12 /	Displacement measurement (1) Introduction to displacement sensors.	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
13 /	Displacement measurement (2) An experiment to measure the displacement of a shutter using a photo diode.	Hands-on session	Review materials of last class. Make the report Prepare for the next class.	200
14 /	Speed measurement (1) Introduction to rotary encoders. Absolute encoder.	A lecture demonstrates the topic. Solving a worksheet.	Review materials of last class. Do the assignments. Prepare for the next class.	200
15 /	Speed measurement (2) An experiment of measuring the speed of a dc motor shaft using a rotary encoder.	Hands-on session	Review materials of last class. Make the report. Study for the final exam.	200
16 /	Final Exam	Exam on the contents of classes #1 to class #15	Study for the final exam	200
17 /	Final Exam Return. Self-check.	Return the exams results.		

2024 Syllabus

Instructor with "*" means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Control Engineering	2	540800	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	KUSHIMA, Yoshihiro	31.117		16:50~17:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Control system	Students will: (1) Learn the basics of developing control system (2) Learn Laplace transformation and the transfer functions of control systems (3) Learn the simulation method of control system by MATLAB/Simulink (4) Learn the basics of control system analysis based on the transient and frequency response
2	Laplace transform	
3	Transfer function, block diagram	
4	Frequency response, transient response	
5	Discrimination of stability	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.
This is a basic course in control engineering. We will cover the following topics:

1. Laplace transform
2. Transfer function
3. Block diagram
4. Bode diagram
5. Stability of control system
6. Design of control system

Students are expected to understand the meaning of the analysis method for control systems and expected to determine the stability of a control system.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books: Control Engineering: MATLAB Exercises
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

It is desirable that you fully understand and master the contents of the mechanics and mathematics courses.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Be able to Laplace transform a simple mathematical model of a system and express it using a transfer function.
②	h, i	Be able to use MATLAB/Simulink to create a block diagram of a system.
③	h, i	Be able to express the dynamic characteristics of a system as transient and frequency response characteristics.
④	h, i	Be able to can use MATLAB/Simulink to simulate the responsiveness of control systems.
⑤	h, i	Be able to discriminate the stability of control system.
⑥	h, i	Be able to design the control system.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		35	20	35	0	0	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	15	10	10	0	0	0	0	35
	Ability to think, reason and create	20	10	10	0	0	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	5	5
	Attitude and motivation for learning	0	0	15	0	0	0	5	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	A semester final examination is given, as specified in the course schedule, to evaluate your degree of achievement comprehensively.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	Several 50-minute quizzes are given to improve comprehension.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Students will prepare and submit reports to demonstrate their understanding of assigned topics and issues.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	Students will be evaluated based on learning efforts in lectures and practices and report submission.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Students can design control systems for simple mechanical systems. (2) Students can express the mathematical model of an automatic control system as a transfer function. (3) Students can express the dynamic characteristics of the automatic control system as transient and frequency response characteristics, and explain what they mean. (4) Students can determine and confirm the stability of the designed control system. (5) Students can use MATLAB / Simulink to simulate the response characteristics of designed control system.	(1) Students can understand the elements necessary for designing control systems for mechanical systems. (2) Students can explain the transfer function. (3) Students can explain the dynamic characteristics of control systems. (4) Students can explain how to determine the stability of the control system. (5) Students can simulate control system responses with MATLAB / Simulink.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Course introduction MATLAB/Simulink Installation	Guidance Lecture and Q&A	Understand the objectives of the course	200
2 /	How to use MATLAB/Simulink	Lecture and Q&A	Review lecture content and assignments	200
3 /	Laplace Transforms Inverse Laplace Transforms	Quiz Lecture and Q&A	Review lecture content and assignments	200
4 /	Logarithmic Graph Unit of Gain	Lecture and Q&A	Review lecture content and assignments	200
5 /	Frequency Response Nyquist Plot	Lecture and Q&A	Review lecture content and assignments	200
6 /	Review for Quiz	Review	Prepare for quiz	200
7 /	Quiz	Quiz	Review	200
8 /	Quiz Return Bode Plot (1)	Lecture and Q&A	Review lecture content and assignments	200
9 /	Bode Plot (2)	Lecture and Q&A	Review lecture content and assignments	200
10 /	Stability Analysis (1)	Lecture and Q&A	Review lecture content and assignments	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Stability Analysis (2)	Lecture and Q&A	Review lecture content and assignments	200
12 /	Arduino MATLAB/Simulink Exercises (1)	Lecture and Q&A	Review lecture content and assignments	200
13 /	Arduino MATLAB/Simulink Exercises (2)	Lecture and Q&A	Review lecture content and assignments	200
14 /	Arduino MATLAB/Simulink Exercises (3)	Lecture and Q&A	Review lecture content and assignments	200
15 /	Review for Final Exam	Review	Prepare for the final exam	200
16 /	Final Exam	Exam	Review all materials	
17 /	Returning Final Exam Results	Review Self-evaluation		

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Materials Engineering	2	541000	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	HAN, Justin	Kanazawa C 31.119		Wednesday 4:50-5:30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Engineering Materials	Materials Engineering refers to the criteria and decisions behind the selection of the materials used in the design of mechanical parts. Students will learn about the chemical makeup of and its influence on the mechanical properties of each class of material. In addition, students will learn about basic fabrication and evaluation methods. Lastly, students will learn to consider the influence of each material in regards to modern society.
2	Crystal Structure	
3	Fracture	
4	Fabrication and Processing	
5	Metal, Ceramic, Polymer, Composite	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

The progression of the course is as follows'

1. Overview of the 4 Basic Classifications of Materials used in Engineering and Industry
2. Introduction to Fracture Mechanisms
3. Introduction to common Fabrication and Processing Methods
4. Economic, Environmental, and Societal Issues in Materials Engineering

The majority of this course be will focused on processing and understanding ideas and concepts. Therefore, success in this class will depend on the students' ability to analyze information and draw conclusions.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Fundamentals of Materials Science and Engineering: An Integrated Approach, International Adaptation, 6th Edition; ISBN: 978-1119820543

Reference books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge of basic chemistry concepts (Periodic Table of Elements, Molecular Bonds)

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Be able to categorize materials based on properties
②	h	Be able to analyze and determine mode of fracture for each class of material
③	h	Be able to select appropriate materials according to application
④	a, d	Be able to select appropriate fabrication and processing methods according to design requirements
⑤	b, h	Be able to connect concepts to applications in modern industry and society
⑥	a, g, i	Be able to extrapolate potential application for materials based on their properties

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		35	30	35	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	25	20	15	0	0	0	0	60
	Ability to think, reason and create	10	10	10	0	0	0	0	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	0	0	10	0	0	0	0	10

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	✓	There will be a final exam at the end of the semester that will test you on important vocabulary and terminology as well as the concepts regarding the materials that you learned about throughout the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Quizzes	①	✓	There will be a short quiz every 2 weeks at the beginning of class about the contents of the previous two classes. For these quizzes, you are allowed to use your own homework that you have completed as reference material for the quiz. You are not allowed to use your textbook, the internet, cellphones, class notes, or anyone else's notes. Makeup quizzes will not be given without a valid excuse.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	There will be homework every week based on the concepts taught in class. Homework will be collected alongside the quizzes. It is important that you understand the what is being asked in each problem and your individual answer to those problems as they will be your reference materials for the quizzes. Furthermore, the contents of the homework will connect to the following week's topics. Due to this, homework must be done in a timely manner. Late homework will be accepted after their submission deadline at a -10% late penalty per school day up to a max of -50%. However, any homework that is copied will result in a 0.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
- Able to explain the properties attributed to the basic material types and subtypes. - Able to explain the cause of fracture and propose methods for prevention - Able to develop prospective applications of materials with valid supporting arguments - Able to propose fabrication methods based on desired specifications, budget, and environmental effects - Able to propose materials for use in real-world applications based on desired specifications - Able to explain the reason for the application of a material	- Able to identify general properties of the basic material types - Able to identify the mode of fracture of materials - Able to give a simple reason for using a material in an application - Able to identify the method of fabrication of material parts - Able to identify the type of material used in real-world applications - Able to identify the reason for the application of a material

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance Students learn about the history of materials in engineering and about the 4 classes of materials used in modern industry.	Lecture	Review: (1) Read and understand the rules and regulations that are being applied to the course. (2) Read the relevant chapters.	200
2 /	Crystal Structure (1) Students learn about the differences in the crystal structure of each classification of material.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
3 /	Crystal Structure (2) Students learn about the differences in the crystal structure of each classification of material.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
4 /	Crystal Structure (3) Students learn about Phase Diagrams for metals and ceramics.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
5 /	Crystal Structure (4) Students learn about how the crystal structure of each class of material affects their physical properties.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
6 /	Material Evaluation Methods Students learn about how the properties of materials are evaluated.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
7 /	Fracture Mechanisms (1) Students learn about the modes of fracture for each class of material.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
8 /	Fracture Mechanisms (2) Students learn about the factors that can affect the mode of fracture for each material.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
9 /	Types and Application of Materials Students learn about the different types and applications for each class of materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
10 /	Fabrication and Processing (1) Students learn about common fabrication methods for metal materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Fabrication and Processing (2) Students learn about common fabrication and processing methods for ceramic materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
12 /	Fabrication and Processing (3) Students learn about common fabrication and processing methods for polymer materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
13 /	Fabrication and Processing (4) Students learn about common fabrication and processing methods for composite materials.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
14 /	Economic, Environmental, and Societal Issues in Materials Engineering (1) Students learn about the influence of materials on modern society.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
15 /	Economic, Environmental, and Societal Issues in Materials Engineering (2) Students learn about the influence of materials on modern society.	Lecture	Preview: Read Assigned Chapters Review: Complete Assignment	200
16 /	Final Exam			
17 /	Final Exam Return			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Elective	Thermal Engineering	2	540700	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	FUKUE, Takashi	Yatsukaho C 61.210		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Carnot Cycle	The goals of this course are to; (1) understand basic knowledge about the irreversibility in the nature world. (2) learn how to convert energy and obtain work from heat. acquire design skills for energy conservation, effective utilization of energy resources and energy conservation in mechanical engineering.
2	The Second Law of Thermodynamics	
3	Entropy, Exergy	
4	Real Gas	
5	Thermal Cycles	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

This course follows Thermodynamics. Thermodynamics mainly dealt the quantitative conservation of energy through the explanation of thermal equilibrium and the 1st law of thermodynamics. Based on the knowledge of Thermodynamics, this class conducts the necessary skills and knowledge of thermal engineering needed to design actual thermal equipment. The class explains a qualitative evaluation of energy and effective utilization of energy resources based on the 2nd law of thermodynamics, the basic concepts of heat engines and knowledge of properties of vapor as an example of real gas. Especially, this class covers the following topics:

(1) Thermal efficiency and Carnot cycle, (2) The 2nd law of thermodynamics, (3) Entropy, Exergy,
(4) Thermal characteristics of real gas, (5) Gas cycles

Students are expected to understand the meaning of terms and formulas. Students are expected to solve the exercises by yourself. Students should be aware of the instructor's explanation in the class, because the schedules of quizzes, tests and reports may change as the class progresses. Students should not be absent from the class, as the handouts may not be received. Detailed schedules and contents of the course are explained in the first class.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: Thermodynamics, English-Japanese Bilingual Textbook Series of Fundamental Engineering, Masataka Arai and Tomohiko Furuhata, Morikita Publishing.

Reference books: Technical Thermodynamics for Engineers -Basic and Applications-, Achim Schmidt, Springer.

Reserved books: N/A

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Enough skill of mathematics (especially differential / integral calculations)
How to use a calculator

No.	Program Objectives	Target Abilities for Students (9pt)
①	g, h, i	Be able to explain the Carnot cycle and apply the knowledge to problems
②	g, h, i	Be able to explain the 2nd law of thermodynamics
③	g, h, i	Be able to explain entropy and exergy and apply the knowledge to problems
④	g, h, i	Be able to explain the characteristics of a real gas with phase change and apply the skills to problems
⑤	g, h, i	Be able to explain gas cycles and apply the knowledge to problems about design of thermal equipment
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	70	30	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	25	0	0	0	0	0	25
	Ability to think, reason and create	0	35	10	0	0	0	0	45
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	10	0	0	0	0	10
	Attitude and motivation for learning	0	10	10	0	0	0	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Tests are conducted several times during class to confirm learning of the course content.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Several reports need to be prepared as homework. The content of the reports includes previews and reviews of class topics.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
(1) Explain the 2nd law of thermodynamics. Also, use this understanding to solve advanced problems related to thermal issues. (2) Explain Carnot cycle. Also, use this understanding to solve advanced problems related to thermal issues. (3) Explain a real gas and its characteristics. Also, use this understanding to solve advanced problems related to thermal issues. (4) Explain the various gas cycles and the vapor cycle with P-V and T-S diagrams. Also, evaluate the performance of thermal systems.	(1) Explain the 2nd law of thermodynamics. Also, use this understanding to solve basic problems related to thermal issues. (2) Explain Carnot cycle. Also, use this understanding to solve basic problems related to thermal issues. (3) Explain a real gas and its characteristics. Also, use this understanding to solve basic problems related to thermal issues. (4) Explain the various gas cycles and the vapor cycle with P-V and T-S diagrams. Also, evaluate the performance of thermal systems.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Introduction - Guidance for the course - Differences of Thermodynamics and Thermal Engineering Lecture: The 2nd law of Thermodynamics (1): - Concept of cycle - Thermal efficiency, Coefficient of performance (COP)	Lecture Self-check	Review the contents of Thermodynamics and prepare chpt. 12.1 and 12.3 on the textbook. Review	100 100
2 /	Lecture: The 2nd law of Thermodynamics (2): - Reversible and irreversible processes - Characteristics of Carnot cycle - Expression of the 2nd law of thermodynamics - Clausius' integral	Lecture Exercise Self-check	Prepare chpt. 9, 12.4, 13.1 - 13.4 on the textbook. Review	100 100
3 /	Lecture: The 2nd law of Thermodynamics (3): - Definition of Entropy - T-S diagram - Equations for entropy change	Lecture Exercise Self-check	Prepare chpt. 6, 7.1 – 2 on the textbook. Review	100 100
4 /	Lecture: The 2nd law of Thermodynamics (4): - Entropy change of ideal gas - Entropy change of liquids and solids	Lecture Exercise Self-check	Prepare chpt. 8 on the textbook. Review	100 100
5 /	Lecture: The 2nd law of Thermodynamics (5): - Exergy - Free energy Review of the 2nd law of Thermodynamics	Lecture Exercise Self-check	Prepare chpt. 6.4 and 13.6 on the textbook. Review	100 100
6 /	Test (1) : The 2nd law of thermodynamics	Test Self-check	Review the previous contents of the 2nd law of thermodynamics. Review	150 50
7 /	Lecture: Characteristics of real gas (1) - Difference of ideal gas and real gas - Phase change	Lecture Exercise Self-check	Prepare chpt. 3.1 and prepare chpt. 15.1 on the textbook. Review	100 100
8 /	Lecture: Characteristics of real gas (2) - van der Waal's equation of state - Wet saturated vapor	Lecture Exercise Self-check	Prepare chpt. 15.2 – 15.3 on the textbook. Review	100 100
9 /	Lecture: Characteristics of real gas (3) - Thermodynamic state change of water vapor - Example of calculation of characteristics of vapor Review of the characteristics of real gas	Lecture Exercise Self-check	Prepare chpt. 15.4 on the textbook. Review	100 100
10 /	Test (2) : Characteristics of real gas	Test Lecture Self-check	Review the previous contents of the characteristic of real gas. Review	150 50

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Lecture: Gas cycles and their characteristics (1) - Internal combustion engine - Constant volume cycle	Lecture Exercise Self-check	Prepare chpt. 14.2 - 14.3 on the textbook. Review	100 100
12 /	Lecture: Gas cycles and their characteristics (2) - Constant pressure cycle - Sabathe cycle	Lecture Exercise Self-check	Prepare chpt. 14.4 - 14.5 on the textbook. Review	100 100
13 /	Lecture: Gas cycles and their characteristics (3) - Brayton cycle Review of the gas cycles	Lecture Exercise Self-check	Prepare chpt. 14.6 on the textbook. Review	100 100
14 /	Review (1) Whole quiz	Quiz Lecture Self-check	Review the previous contents Review the quiz	120 80
15 /	Review (2) Review of whole contents of thermal engineering	Review Lecture Self-check	Review the previous contents	100 100

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Mech. Required	Programming A	2	531400	First	Exercises Class

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	POKU, David	KC 31-118-1		9:00-17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Programming	The use of computers is a vital component of modern society. Continuing into the future, programs will continue to be developed to reduce various burdens in society. Understanding how those programs operate will allow engineers to operate and work more effectively. In this course, students will learn the basics of programming structures through the use of Python and how they apply to mechanical engineering.
2	Python	
3	Data Structures	
4	Computation	
5	Mechatronics	

Course Description and Expectations for Students (10.5pt)

This extensive 30-week course is meticulously designed to guide students through the fundamentals of Python programming to its advanced applications in various domains. The course begins with an introduction to Python, covering its setup, syntax, and basic programming concepts. As weeks progress, students will delve into more complex topics such as data structures, file handling, object-oriented programming, web development, data analysis, machine learning, networking, system administration, and more. Each week focuses on a specific aspect of Python, ensuring a thorough understanding of its applications in fields like cybersecurity, finance, scientific computing, graphic design, IoT, cloud computing, game development, and blockchain technology. The course culminates in a capstone project, allowing students to apply their learning to a comprehensive, real-world problem.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Knowledge and experience learned and acquired so far

No.	Program Objectives	Target Abilities for Students (9pt)
①	a	Students will be able to analyze issues, collect information, and identify problems.
②	h	Students will be able to think logically based on data, facts, and truth.
③	h	Students will be able to connect and apply new knowledge and acquired knowledge.
④	d	Students will be able to explain their analysis and ideas logically, in an easy-to-understand manner.
⑤	a	Students will be able to show an attitude of trying to objectively evaluate one's ability.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	15	15	40	0	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	5	5	0	10	0	25
	Ability to think, reason and create	0	5	5	5	0	10	0	25
	Collaboration and leadership	0	0	0	10	0	0	0	10
	Announcement / Expression / Communication	0	5	5	20	0	0	0	30
	Attitude and motivation for learning	0	0	0	0	0	10	0	10

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There will be a quiz in week 4 / 8 / 14
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Reports	①	✓	Report will include individual work report (the project progress and outcomes). The format of the report will be announced by the instructors. Students must submit the final report at the end of the semester.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①	✓	There will be a presentation at the end of the semester. Students will give oral progress of their projects. The format of the presentation will be announced by instructors, such as slides, poster, and/or any other styles.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①	✓	Students must submit weekly reports as the evidence of their projects. The format of the portfolio will be announced by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Hands-On Engagement: Complete practical exercises and group projects to apply theoretical concepts in real-world scenarios. Research and Exploration: Undertake research activities, data collection, and case studies to deepen understanding of AI applications. Creative Thinking: Demonstrate creativity in projects, especially in envisioning the future of AI.	A solid foundation in critical thinking and problem-solving skills. The ability to innovate and think creatively in various situations. Effective communication skills, both in personal and professional contexts. The capacity to collaborate with others, showing flexibility and empathy.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Week 1 lesson 1: Introduction to Python ● What is Python? Overview and Applications ● Setting Up: Installing Python and IDEs ● Writing Your First Python Program	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
2 /	lesson 2: Python Basics ● Python Syntax and Variables ● Data Types and Operations Basic Input and Output	Activity / Explanation / Report	Confirm the schedule and objectives. Making weekly report	60
3 /	Week 2 Lesson 3: Control Structures ● Conditional Statements (if, elif, else) ● Loop Constructs: for and while Loops ● Control Flow Tools: break, continue, pass	Activity / Explanation / Report		60
4 /	Lesson 4: Functions and Modules ● Defining and Using Functions ● Python Modules and Packages ● Namespaces and Scope	Activity / Explanation / Report		60
5 /	Week 3: Lesson 5 Data Structures I ● Lists and List Operations ● Tuples and Sets ● Dictionaries and Their Applications	Activity / Explanation / Report		60
6 /	Lesson 6 Data Structures II ● Advanced List Comprehensions ● Stacks, Queues, and Heaps ● Implementing Data Structures: Linked Lists, Trees	Activity / Explanation / Report		60
7 /	Week 4: Lesson 7 String Manipulation ● Basic String Operations ● String Formatting and Methods ● Regular Expressions in Python	Activity / Explanation / Report	Quiz Report from lesson 1-3 Project review	60
8 /	Lesson 8 File Handling ● Reading and Writing Files ● Working with Different File Formats (JSON, CSV) ● File and Directory Management	Activity / Explanation / Report	Quiz Report from lesson 1-3 Project review	60
9 /	Week 5: Lesson 9: Object-Oriented Programming ● Introduction to OOP: Classes and Objects ● Inheritance and Polymorphism ● Special Methods (Magic Methods)	Activity / Explanation / Report		60
10 /	Lesson 10: Advanced Python Concepts ● Iterators and Generators ● Decorators and Context Managers ● Error and Exception Handling	Activity / Explanation / Report		60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Week 6 Lesson 11: Python for Web Development ● Web Scraping with Python ● Introduction to Web Frameworks (Flask/Django) ● Building a Basic Web Application	Activity / Explanation / Report		60
12 /	Lesson 12: Working with Databases ● SQL Basics and SQLite ● Integrating Python with SQL Databases ● ORMs in Python (like SQLAlchemy)	Activity / Explanation / Report		60
13 /	Week 7 Lesson 13: Python for Data Analysis ● Introduction to Pandas and NumPy ● Data Cleaning and Preparation ● Data Analysis and Visualization with Matplotlib and Seaborn	Activity / Explanation / Report		60
14 /	Lesson 14: Python for Data Science ● Introduction to Machine Learning with Python ● Simple Machine Learning Models ● Data Preprocessing and Analysis with Scikit-Learn	Activity / Explanation / Report		60
15 /	Week 8 Lesson 15: Advanced Data Science Topics ● Advanced Machine Learning Concepts ● Introduction to Neural Networks and TensorFlow ● Deep Learning Project	Activity / Explanation / Report	Quiz Report from lesson 4-8 Project review	60
16 /	Lesson 16: Python in Networking ● Basics of Network Programming ● Creating Network Applications ● Working with Network Protocols	Activity / Explanation / Report	Quiz Report from lesson 4-8 Project review	60
17 /	Week 9: Lesson 17: Python for System Administration ● Scripting for System Administration ● Automating System Maintenance Tasks ● Working with Operating System Services	Activity / Explanation / Report		60
18 /	Lesson 18 Multithreading and Multiprocessing ● Introduction to Parallel Execution ● Multithreading in Python ● Multiprocessing and Concurrency	Activity / Explanation / Report		60
19 /	Week 10 Lesson 19: Python in Cybersecurity ● Basics of Python in Cybersecurity ● Writing Scripts for Security Automation ● Ethical Hacking with Python	Activity / Explanation / Report		60
20 /	Lesson 20: Python in Finance ● Financial Analysis with Python ● Algorithmic Trading Strategies ● Risk Management Models	Activity / Explanation / Report		60

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
21 /	Week 11 Lesson 21: Advanced Web Development ● Advanced Flask/Django Features ● RESTful API Development with Python ● Full-Stack Python Web Development	Activity / Explanation / Report		60
22 /	Lesson 22: Python in Scientific Computing ● Scientific Computing with SciPy ● Working with Scientific Data ● Simulation and Modeling in Python	Activity / Explanation / Report		60
23 /	Week 12: Lesson 23: Python for Graphic Design and Multimedia ● Creating Graphics with Python ● Working with Images and Multimedia ● Building Interactive Applications	Activity / Explanation / Report		60
24 /	Lesson 24: Advanced Topics in Data Science ● Time Series Analysis with Python ● Natural Language Processing (NLP) ● Advanced Deep Learning Projects	Activity / Explanation / Report		60
25 /	Week 13: Lesson 25: Python for IoT ● Introduction to IoT with Python ● Building IoT Devices with Raspberry Pi/Arduino and Python	Activity / Explanation / Report		60
26 /	Lesson 26: Cloud Computing with Python ● Introduction to Cloud Computing ● Integrating Python with AWS/Azure/GCP ● Building and Deploying Python Applications in the Cloud	Activity / Explanation / Report		60
27 /	Week 14: Lesson 27: Python for Game Development ● Game Development Basics with Pygame ● Designing and Creating a Simple Game ● Advanced Game Mechanics and Features	Activity / Explanation / Report	Report from lesson 4-8 Hand in Project Prepare for the presentation and the report	60
28 /	Lesson 28: Python and Blockchain ● Understanding Blockchain Fundamentals ● Implementing Blockchain with Python ● Building a Simple Cryptocurrency	Activity / Explanation / Report	Report from lesson 4-8 Hand in Project Prepare for the presentation and the report	60
29 /	Week 15 Lesson 29: Project Presentation	Presentation	Presentation	60
30 /	Lesson 30: Project Presentation	Presentation	Presentation	60

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Information Mathematics III	2	550300	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	FUJISHIMA, Satoshi	Kanazawa C 31.116		Thu. 16.30 - 17.30

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Scientific Calculation	Machine learning algorithms are very important techniques in data science and data mining, and it is necessary to use different algorithms according to the purpose and build an appropriate machine learning model. In this course, students will learn typical algorithms of machine learning through hand calculation and implementation in Python.
2	Numerical Analysis	
3	Machine Learning	
4	Classification	
5	Regression	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minuite self-study times for 15 50-minute classes.

This course builds on knowledge about mathematics, probability and statistics from previous courses and introduces the machine learning techniques, such as linear regression analysis, k-NN, Naïve Bayes, decision tree, and neural network etc. Students will gain a deeper understanding of machine learning techniques through manual calculations and program implementation in Python.

Advice on taking this course:
- Have laptop ready before class every time.
- Be sure to prepare sufficiently for class and the incoming topics in advance.
- Submit assignments on time.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:
Reference books:
Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic knowledge of computers and Python programming.
Basic knowledge of mathematics, probability, and statistics from Information Mathematics I and II.

No.	Program Objectives	Target Abilities for Students (9pt)
①	a,h,i	Students will be able to understand basics of scientific calculation methods and write simple programs using any of them.
②	a,i	Students will be able to explain flow of machine learning process.
③	a,h,i	Students will be able to understand basics of classification methods and write simple programs using any of them.
④	a,h,i	Students will be able to understand basics of linear regression and write simple programs using any of them.
⑤	a,h,i	Students will be able to consider appropriate machine learning algorithms for each actual problem.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	30	0	70	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	10	0	25	0	0	35
	Ability to think, reason and create	0	0	10	0	30	0	0	40
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	5	0	5	0	0	10
	Attitude and motivation for learning	0	0	5	0	10	0	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Reports are worksheet exercises and written assignments for final project. The reports should be submitted by the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Works are programming exercises assigned during class. The Python source code should be submitted by the due date designated by the instructors.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students are able to understand machine learning techniques and select an appropriate algorithm of them according to their purpose. Students are able to implement a program to build a machine learning model for data analysis (data mining).	Students are able to understand and explain simple flow of machine learning process. Students will be able to consider appropriate machine learning algorithms for each actual problem. Students are able to explain the simple flow of data processing or classification.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance, Python Programming Environment, Machine Learning Outline	Lecture	Read the given lecture slides.	200
2 /	Regression Analysis (1) Students will learn about simple regression analysis by manual calculation and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
3 /	Regression Analysis (2) Students will learn about simple regression analysis by manual calculation and Python coding.	Exercise	Read the given lecture slides and proceed with exercises.	200
4 /	Regression Analysis (3) Students will learn about Python coding for simple regression analysis.	Exercise	Read the given lecture slides and proceed with exercises.	200
5 /	k-Nearest Neighbor (1) Students will learn about k-NN by manual calculation and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
6 /	k-Nearest Neighbor (2) Students will learn about k-NN by manual calculation and Python coding.	Exercise	Read the given lecture slides and proceed with exercises.	200
7 /	k-Nearest Neighbor (3) Scaling Students will learn about Scaling methods and applying them to the k-NN with Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
8 /	Naive Bayes (1) Students will learn about Naive Bayes by hand calculation and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
9 /	Naive Bayes (2) Students will learn about Naive Bayes by hand calculation and Python coding.	Exercise	Read the given lecture slides and proceed with exercises.	200
10 /	Naive Bayes (3) Students will learn about Naive Bayes with Python coding.	Exercise	Read the given lecture slides and proceed with exercises.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Decision Tree (1) Students will learn about Decision Tree by hand calculation and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
12 /	Decision Tree (2) Students will learn about outline of deep learning and coding style.	Exercise	Read the given lecture slides and proceed with exercises.	200
13 /	Cross Validation Students will learn about Cross Validation and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
14 /	Correctness (1) Students will learn about Correctness of models and Python coding.	Lecture and Exercise	Read the given lecture slides and proceed with exercises.	200
15 /	Correctness (2) Students will learn about Correctness of models and Python coding.	Exercise	Read the given lecture slides and proceed with exercises.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required * Practical	Database	2	550800	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	* FUJISAWA, Takeshi	Kanazawa C 31:104		Fri. 15:30 – 17:30

Course Objectives

Keywords		Learning Objectives
1	Relational Database	In today's advanced information society, the amount of data handled by information processing systems is enormous, and the growth of data volume is accelerating. The need for data scientists is increasing every year. This course provides an overview of databases, mainly relational databases, and how to write and operate SQL.
2	SQL	
3	Database normalization	
4	Relational Algebra	
5	Transaction	

Course Description and Expectations for Students

This will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

Learn the basics of data models and database management systems, focusing on relational databases. Students will learn the basics of data models and database management systems, focusing on relational databases. Assignments will be given to improve students' understanding and grasp of the content of the course. In the curriculum, this course aims to develop software development skills using databases. In the curriculum, this course aims to cultivate the ability to develop software using databases, and students should take this course with the mastery of SQL as a programming language in mind.

Relevance of practical experience to class subjects

Faculty members with practical experience in software development at major information companies and IT-related Internet venture companies will practice database design and database programming. In the programming exercises, they use database engines that are actually used in the real world, so that students can acquire practical and practical programming know-how based on their work experience.

Required Materials (textbooks, reference books, reserved books)

Textbooks: The Manga Guide to Databases (No Starch Press) ISBN 978-1-59327-190-9

Reference books:

Reserved books: 「2023 年度版　基本情報技者標準教科書」(オーム社) ISBN 978-4274229817

Knowledge/Skills Needed to Take This Course (Prerequisites)

Students should have the skills to install a relational database management system. In the first class, we will practice how to install the relational database management system and how to build the environment. Be sure to bring your textbook and notebook PC to each class.

No.	Program Objectives	Target Abilities for Students
①	i,h	Understand what the given SELECT statement is querying.
②	i,h	Can design a database and create tables.
③	i,h	Can transform from first normal form to third normal form
④	i,h	Can explain the difference between second normal form and third normal form
⑤	h	Can write programs that manipulate SQL.
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		50	0	0	0	20	0	30	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	0	0	0	10	0	10	40
	Ability to think, reason and create	20	0	0	0	0	0	10	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	10	0	0	0	10	0	10	30

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①	✓	Check whether the students have acquired basic knowledge and skills about each unit they have studied.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		Students will create a program to operate a database and evaluate their understanding of database utilization.
	②		
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	An assignment will be given to support self-study, and its validity will be assessed as the result of self-study done 30 times in 50 minutes.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
In addition to the standard achievement levels, the student should be able to (5) Can write complex SQL statements, including joins and subqueries (6) Can design a database that is correctly implemented up to the third normalization. (7) Can write programs to manipulate databases.	(1) Can explain what a relational data model is. (2) Can write SQL for a given relational algebra. (3) Represent the real world using the entity-relationship model, and translate the representation into a relational database schema. (4) Explain in detail the normalization procedure

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
1 /	What is a database? Able to explain why a database is necessary.	Lecture	Read textbook and Assignment	200
2 /	What is a relational database? Able to explain what relational database is.	Lecture	Read textbook and Assignment	200
3 /	Relational Algebra Able to perform relational algebra operations.	Lecture	Read textbook and Assignment	200
4 /	Let's design a database Able to draw E-R model diagrams. Able to normalize non-normal form data to first normal form.	Lecture	Read textbook and Assignment	200
5 /	2nd Normal Form Able to normalize 1st normal form to 2nd one	Lecture	Read textbook and Assignment	200
6 /	3rd Normal Form Able to normalize 2nd normal form to 3rd one	Lecture Quiz	Read textbook and Assignment	200
7 /	SQL① Able to make basic select SQL statement Able to create tables Able to insert , update or delete data rows	Lecture	Read textbook and Assignment	200
8 /	SQL② Able to group data and extract data by using complex extraction conditions of SQL.	Lecture	Read textbook and Assignment	200
9 /	SQL③ Able to make complex SQL statement and join tables	Lecture	Read textbook and Assignment	200
10 /	SQL ④ Able to make SQL with subquery	Lecture Quiz	Read textbook and Assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
11 /	Let's operate a database / Transaction. Able to explain ACID and why deadlock happens. Able to perform SQL operations using transactions.	Lecture	Read textbook and Assignment	200
12 /	DB programming ① Create a program to perform CRUD operations.	Lecture Self-Study	Read textbook and programming	200
13 /	DB programming ② Create a program to perform CRUD operations	Lecture Self-Study	Assignment of DB programming	200
14 /	DB programming ③ Create a program to perform CRUD operations	Lecture Self-Study	Assignment of DB programming	200
15 /	Wrap up Submit an assignment Review of what you have learned so far	Lecture Self-Study	Assignment of DB programming	200
16 /	Final exam			
17 /	Review of final exam results Self-check			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Software Engineering Lab	2	551100	First	Exercises Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	SONGER, Robert	Kanazawa C: 31.115		Wed. 16:00 – 17:00

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Software Engineering	Software Engineering is a practice-oriented discipline. This course provides students with hands-on experiences for efficiently developing object-oriented software products using software engineering techniques. In addition, students will have an opportunity to develop the necessary teamwork skills including leadership, collaboration, sharing responsibilities through roles, and continuous learning in a team-based computer graphics software project.
2	Computer Graphics	
3	Rendering	
4	Software Frameworks	
5	Team Development	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

Students will have an opportunity to practice the software engineering techniques they learned in previous years and apply them to the domain of computer graphics. The course begins with teaching the basics of computer graphics through hands-on exercises that build a computer graphics framework with Python and OpenGL. The students will then use their computer graphics frameworks to create a software application in a team development project.

The class contents rely heavily on reading contents assigned every week, so it is important to **check the weekly reading assignments**. The teacher may consider your assignments late if you are disruptive or do not participate in class activities.

NOTE: The textbook below is available for free at taylorfrancis.com and will also be available on the course home page.

Required Materials (textbooks, reference books, reserved books) (10.5pt)
Textbooks: "Developing Graphics Frameworks with Python and OpenGL" (CRC Press) ISBN 978-1-003-18137-8
Reference books: None
Reserved books: None

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Students must be familiar with Object-Oriented Programming concepts and be able to set up a development environment for the Python programming language. They should also have a basic understanding of the software development lifecycle from conception to delivery, including the various activities involved in each step.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Explain the steps of a typical computer graphics rendering pipeline
②	h, i	Understand the mathematical theory behind geometric transformations
③	a, h	Create a 3-dimensional scene using a computer graphics framework
④	b, g	Apply software engineering practices to the steps of a development project
⑤	c, d	Plan and execute a software development project as a team
⑥	e, f	Write code with the intention for others to use it

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	10	30	0	30	30	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	5	10	0	5	0	0	20
	Ability to think, reason and create	0	5	10	0	15	10	0	40
	Collaboration and leadership	0	0	0	0	0	10	0	10
	Announcement / Expression / Communication	0	0	10	0	0	5	0	15
	Attitude and motivation for learning	0	0	0	0	10	5	0	15

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	There are two quizzes during the semester. Quizzes are short tests with simple answer type questions such as multiple-choice and fill-in-the-blanks. They allow the students to confirm their comprehension of recently covered content.
	②	✓	
	③		
	④		
	⑤		
	⑥		
Reports	①	✓	Reports are general assignments including handouts, written reports, and documents created during various in-class activities. Reports will be evaluated based on the accuracy of student responses in most cases; otherwise, they will be evaluated based on the amount of effort students put into their creation. In general, if a student submits one of these assignments late, **they will lose 20% of its maximum value towards their grade**.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①	✓	Works are programming exercises assigned during class from the textbook or from the teacher. They give students a chance to apply what they learned to making a small program with an explicit purpose. In general, if a student submits one of these assignments late, **they will lose 20% of its maximum value towards their grade**.
	②	✓	
	③	✓	
	④		
	⑤		
	⑥		
Portfolios	①		The team development project at the end of the semester will count towards student portfolios. It will be graded based on completeness and demonstrated skill of its outcomes, including documents related to planning and managing the project.
	②		
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
① Describe the steps of a computer graphics pipeline	① Identify the steps of a computer graphics pipeline
② Explain transformations in terms of matrices and vectors	② Identify transformations in terms of matrices and vectors
③ Create a 3D scene with a computer graphics framework	③ Apply functions to produce elements of a 3D scene
④ Apply software engineering to a development project	④ Explain techniques used in a development project
⑤ Plan the necessary steps for completing a project	⑤ Follow the necessary steps for completing a project
⑥ Write code with comments that is easy to read and maintain	⑥ Explain a program with comments in the source code

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance and Intro to Computer Graphics Get an overview of the course and the fundamentals of computer graphics rendering pipelines.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
2 /	CG Application Lifecycle Set up base components of a CG framework to link shaders and create a basic GPU program.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
3 /	Shapes and Colors Use single buffering and double buffering with a vertex shader to draw shapes and interpolate between color vertices.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
4 /	Animation and Interactivity Create moving shapes with integrated keyboard inputs.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
5 /	Vectors and Matrices Review the mathematical concepts of vectors, matrices, and their transformations.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
6 /	Geometric Transformations Derive the matrix formulas for 2D and 3D geometric transformations.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
7 /	Enter The Matrix Create a Matrix class and use it to demonstrate translation and rotation transformations.	Lecture Discussion Exercises Quiz	The teacher will announce assignments in class.	200
8 /	The Scene Graph Overview the scene graph and build the structure for a framework that can render 3D scenes.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
9 /	3D Scenes with Geometry and Material Objects Create classes to represent geometric shapes and their rendering properties, then render a 3D scene by putting together the pieces of the scene graph framework.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200
10 /	Polygons, Planes, Spheres, and Cylinders Build a library of geometries for use in constructing complicated 3D scenes.	Lecture Discussion Exercises	The teacher will announce assignments in class.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Team Development Project (1) Choose a project theme as a team and plan its development.	Team Project	The teacher will announce assignments in class.	200
12 /	Team Development Project (2) Follow through on the team plan and execute the development.	Team Project	The teacher will announce assignments in class.	200
13 /	Team Development Project (3) Follow through on the team plan and execute the development.	Team Project	The teacher will announce assignments in class.	200
14 /	Team Development Project (4) Follow through on the team plan and execute the development.	Team Project	The teacher will announce assignments in class.	200
15 /	Team Development Project (5) Follow through on the team plan and execute the development.	Team Project	The teacher will announce assignments in class.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Elective	Media Informatics	2	551300	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	OHTSUKA, Sakuichi	Kanazawa C: 31-312		Make an appointment in class

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Media Information	In this course, students learn basics of (1) auditory- and visual-perceptions, human interfaces, and cognitive biases, (2) recording and processing of media information in computer systems, and (3) methods for user-oriented effective media production based on logical persuasion, resulting that they will acquire abilities to produce multi-media contents and to judge the relationship between human- and media- information.
2	Human Interface (HI)	
3	Computer	
4	Perception (Visual and auditory)	
5	Cognitive bias	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

< Course description >

In nowadays, massive media information, e.g., texts, sounds, images, and movies, are utilized in computer-networks and are applied to real world activities. In this course, students learn basics of (1) auditory- and visual-perceptions, human interfaces, and cognitive biases, (2) recording and processing of media information in computer systems, and (3) methods for user-oriented effective media production based on logical persuasion.

As a result, they will acquire abilities to produce basic multi-media contents and to judge the relationship between human- and media- information.

< Expectations for Students >

Total ability, combined with many kinds of basic knowledge, is required for learning this course. Therefore, students need to review their basic skills: e.g., composition in native language, physics (sound and light), and mathematics (esp. index, logarithm, binary, and hexadecimal).

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: R. Gregory, Eye and Brain: The Psychology of Seeing (Princeton Univ. Press), ISBN: 978-0-691-16516-5

Reference books: 松本 輝彦, 5段落エッセイ指導で日本の子どもが変わる！（リーブル出版）, ISBN: 978-4-86338-115-5

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

As written in "Expectations for Students".

No.	Program Objectives	Target Abilities for Students (9pt)
①	h	Basic comprehension of auditory- and visual-perceptions, human interfaces, and cognitive biases for media-handling.
②	h	Basic comprehension of media information processing and recording in computer systems.
③	g	Be able to create new value through the practice of design thinking and broad investigations of academic disciplines.
④	f	Having organized one's thoughts logically, effectively convey them in a way that takes into consideration the position and emotions of others.
⑤	e	Maintain a clear sense of identity while possessing a fundamental understanding of various cultures and value systems.
⑥	i	With sound learning as a foundation, maintain an attitude for continuously acquiring new knowledge and skills.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	0	50	40	0	0	10	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	0	20	10	0	0	0	30
	Ability to think, reason and create	0	0	10	10	0	0	0	20
	Collaboration and leadership	0	0	5	5	0	0	0	10
	Announcement / Expression / Communication	0	0	10	10	0	0	0	20
	Attitude and motivation for learning	0	0	5	5	0	0	10	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①	∠	Students need to comprehend the course contents clearly and summarize their own idea logically with concrete example(s).
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Presentations	①	∠	Students will present the results of group-discussions on specific topics decided by each group based on course contents.
	②	∠	
	③	∠	
	④	∠	
	⑤	∠	
	⑥	∠	
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		Students need to make active discussions during group works and to make questions in the course if they feel their comprehension would be insufficient.
	②		
	③	∠	
	④	∠	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
Students can clearly explain (1) the basics of recording and processing of media information, e.g., characters, sounds, images, and movies, in computer systems and (2) relationship between auditory- and visual-perceptions and media information. Combining the new knowledge acquired in this course to the previous experiences of media creation during other courses, they will be able to create more sophisticated media arts.	Students will comprehend (1) the basics of recording and processing of media information, e.g., characters, sounds, images, and movies, in computer systems and (2) relationship between auditory- and visual-perceptions and media information. They will be able to comprehend relationships between the new knowledge acquired in this course and the previous experiences of media creation during other courses.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Orientation (1): understanding (a) the difference in criteria between physical world including engineering and psychological world (auditory- and visual-perception and cognition, and (b) difference in the meanings of “information” between in Japan and in general countries.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	100
2 /	Orientation (2): learning the standard methods of communication in the world, i.e., outside of Japan, e.g., (a) top-down thinking processes and (b) paragraph writing.	Lecture & Active Learning	Reviewing orientation and making report and previewing of next class outline.	200
3 /	Light and sound in physical world.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
4 /	Comparison of auditory- and visually-sensing: differences between in case of human and other animals.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
5 /	Utilizing index and logarithm in human auditory- and visually-sensing.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
6 /	Relationship between “perception and cognition” and the meanings of information processing in human brain, i.e., “intuition and logical information”.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
7 /	Introduction to vision: what’s eye.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
8 /	Visual information processing in human brain (1): decomposition and analysis of acquired information.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
9 /	Visual information processing in human brain (2): integration of fragmented information and reconstruction of percepts.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
10 /	Fundamentals of visual perception: brightness, color, motion, and depth.	Lecture & Active Learning	Reviewing first half of the classes and making intermediate report and previewing of next class outline.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Basics of information processing in computer and digital representation of characters.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
12 /	Basics of digital encoding methods of sound and improvement methods of its encoding efficiency.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
13 /	Basics of digital encoding methods of image and video and improvement methods of their encoding efficiency.	Lecture & Active Learning	Reviewing and summarizing of this class and previewing of next class outline.	200
14 /	Group discussions on specific topics decided by each group.	Lecture & Active Learning	Finishing group-work and preparing presentation.	200
15 /	Presentations by each group and supplemental remarks.	Lecture & Active Learning	Reviewing all the classes and making final report.	300

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Elective	Operating System	2	551200	Second	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	FUJISAWA, Takeshi	Kanazawa C 31.104		Friday 16:30-17:30

Course Objectives

	Keywords	Learning Objectives
1	UNIX	Operating system (OS) is the system program that controls a computer system. OS provides an efficient interface for various programs to run on the computer. Nowadays, OS is familiar to computer users, however, the structure is black boxed. In this course, students will learn about the basic functions of the OS, such as process management, memory management, file management, etc., and obtain basic knowledge for creating programs that utilize OS.
2	Process Management	
3	File System	
4	Shell	
5	System Call Programming	

Course Description and Expectations for Students

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.
Learn about the basic components of an operating system and how to use them and gain an understanding of the elements and technologies necessary to realize an operating system. In this course, students will learn about the basic components of an operating system and how to use them. Specifically, the following topics will be covered.

1. Overview of Operating Systems
2. Process Management
3. File System
4. Shell (command interpreter)
5. UNIX System Programming

Required Materials (textbooks, reference books, reserved books)
Textbooks: None
Reference books: None
Reserved books"The UNIX programming environment" (Prentice Hall) ISBN 978-0-139-37681

Knowledge/Skills Needed to Take This Course (Prerequisites)

1. Basic hardware configuration and mechanism of computer systems.
2. Basic programming procedures.

No.	Program Objectives	Target Abilities for Students
①	e	To be able to work using basic UNIX commands
②	e	To be able to explain the basic functions of an operating system.
③	e	To be able to explain the differences between process and program.
④	e	To be able to explain the file system
⑤	e	To be able to write program codes using basic UNIX system calls
⑥		

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		50	0	0	0	20	0	30	100
Comprehensive Strength Criteria	Ability to capture knowledge	20	0	0	0	10	0	10	40
	Ability to think, reason and create	20	0	0	0	0	0	10	30
	Collaboration and leadership	0	0	0	0	0	0	0	0
	Announcement / Expression / Communication	0	0	0	0	0	0	0	0
	Attitude and motivation for learning	10	0	0	0	10	0	10	30

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points
Exams	①	✓	Check how much of basic knowledge and skills the students have acquired over the whole classes.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥		
Quizzes	①		
	②		
	③		
	④		
	⑤		
	⑥		
Reports	①		
	②		
	③		
	④		
	⑤		
	⑥		
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		Develop programming skills in C through the task of deciphering the source code of programs written in C. Students will deepen their understanding of the functions provided by the operating system through system call programming in the C language.
	②		
	③		
	④		
	⑤	✓	
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①	✓	An assignment will be given to support self-study, and its validity will be assessed as the result of self-study done 30 times in 50 minutes.
	②	✓	
	③	✓	
	④	✓	
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement	Description of Standard Achievement
Explain the nature of operating systems and process management. Understand the differences between processes and program. Write a program codes using basic UNIX system calls.	Explain the concepts and structure of the operating system, including processes and file systems.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
1 /	How an Operating System Works UNIX for Beginners Getting startied Files and common commands	Lecture	Research about OS in advance	200
2 /	The File System (1) The basis of files	Lecture Exercises	Read handout and Assignment	200
3 /	The File System (2) Directories and filenames Permissions	Lecture Exercises	Read handout and Assignment	200
4 /	Standard input/output and process what is redirect and pipe ? what is process ?	Lecture Exercises	Read handout and Assignment	200
5 /	Basic commands (1)	Lecture Exercises	Read handout and Assignment	200
6 /	Basic commands (2)	Lecture Exercises	Read handout and Assignment	200
7 /	Basic commands (3)	Lecture Exercises	Read handout and Assignment	200
8 /	Using the Shell (1) Creating new commands Command arguments and parameters	Lecture Exercises	Read handout and Assignment	200
9 /	Using the Shell (2) Program output as arguments Shell variables Looping in shell programs	Lecture Exercises	Read handout and Assignment	200
10 /	C language Tutorial of C language	Lecture Exercises	Complete the assignment	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content	Method	Assignments (Preview and Review)	Time (Minutes)
11 /	System Call Programming (1) Process	Lecture Exercises	Complete the assignment	200
12 /	System Call Programming (2) File input / output File System	Lecture Exercises	Complete the assignment	200
13 /	System Call Programming (3) Networking	Lecture Exercises	Complete the assignment	200
14 /	System Call Programming (4) Comprehensive Assignment	Lecture Self-Study	Complete the assignment	200
15 /	Wrap up Submit an assignment Review of what you have learned so far	Lecture Self-Study	Complete and submit the assignment	200
16	Final Exam			
17	Review of final exam results Self-check			

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Elective	Network Systems Lab	2	551400	Second	Exercises Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	MUKAI, Hiroaki / SAKAMOTO, Shinji	21.4		Monday 17:05 - 18:45

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Computer networks	This course introduces the knowledge and theory of TCP/IP protocols supporting the current Internet, and imparts various related communication technologies to students taking this course. Through this, students will gain an understanding of computer networks such as LAN and WAN to acquire basic skills related to network operations.
2	Protocols	
3	OSI reference model	
4	TCP/IP	
5	Internet	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

Students will systematically learn the basic knowledge and theories related to computer networks as shown below.

1. Basic mechanisms of computer networks
2. OSI reference model and TCP/IP
3. Physical layer and datalink layer
4. Network layer and transport layer
5. Routing protocol and application layer

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks: "Mastering TCP/IP (6th edition)" (in Japanese), T. Takeshita and others, Ohmsha, ISBN-13: 978-4274068768

Reference books: Nothing.

Reserved books: Nothing.

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

Basic knowledge and skills (binary number calculation, programming, etc.) related to first-year computer learning are required.

No.	Program Objectives	Target Abilities for Students (9pt)
①	h, i	Be able to explain the basic mechanisms of computer networks.
②	h, i	Be able to explain the functions of each layer in the OSI reference model.
③	h, i	Be able to explain the functions of each layer in TCP/IP protocols.
④	h, i	Be able to explain the basic mechanisms of the Internet.
⑤	h, i	Be able to perform network diagnostics using basic network commands.
⑥	h, i	Be able to perform network diagnostics using basic network analyzation tools.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		0	50	50	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	0	10	10	0	0	0	0	20
	Ability to think, reason and create	0	10	10	0	0	0	0	20
	Collaboration and leadership	0	10	10	0	0	0	0	20
	Announcement / Expression / Communication	0	10	10	0	0	0	0	20
	Attitude and motivation for learning	0	10	10	0	0	0	0	20

* The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①		
	②		
	③		
	④		
	⑤		
	⑥		
Quizzes	①	✓	Several quizzes to understand basic knowledge and theories related to computer networks learned in class will be given. Specifically, the following items are reviewed: 1. The basic mechanism of information communication, the OSI model, and the TCP/IP model 2. The physical layer and the datalink layer. 3. The network layer and the transport layer. 4. Routing protocols and the application layer.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Reports	①	✓	Several reports to understand basic knowledge and theories related to computer networks learned in class will be given. Specifically, the following items are reviewed: 1. The basic mechanism of information communication, the OSI model, and the TCP/IP model 2. The physical layer and the datalink layer. 3. The network layer and the transport layer. 4. Routing protocols and the application layer.
	②	✓	
	③	✓	
	④	✓	
	⑤	✓	
	⑥	✓	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
By the end of the course, students should be able to explain the following items systematically related to computer networks: 1. Basic information and communication systems 2. OSI reference model and TCP/IP models 3. Physical layer and datalink layer 4. Network layer and transport layer 5. Routing protocol and application layer Additionally, students should be able to use appropriate network commands and tools for network maintenance and management.	By the end of the course, students should be able to explain the basic contents of the following items related to computer networks: 1. Basic information and communication systems 2. OSI reference model and TCP/IP model 3. Physical layer and datalink layer 4. Network layer and transport layer 5. Routing protocol and application layer Additionally, students should be able to use appropriate network commands and tools for basic network diagnostics.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Overview for information & communication network (Part 1): Learn the history of various communication technologies and protocol standardization.	Lecture and exercises	Review of lecture content (history of information network, etc.) and preparation for Chapter 1 (basic network knowledge) of the textbook.	200
2 /	Overview for information & communication network (Part 2): Outline network technologies and usage patterns in recent years and learn about their relationship with this course.	Lecture and exercises	Review of lecture contents (current network usage) and preparation for Chapter 2 (basic knowledge of TCP/IP) of the textbook.	200
3 /	Fundamentals of TCP/IP: Learn the basic principles of TCP/IP networks, the mechanisms and roles of layering and encapsulation using the OSI reference model, coexistence of different models within a network, and multiprotocol networks.	Lecture and exercises	Review of lecture contents (OSI reference model and TCP/IP), and preparation for Chapter 3 (Datalink) of the textbook.	200
4 /	Datalink (Part 1): Learn about datalink systems, MAC address, Ethernet, etc.	Lecture and exercises	Review and preparation of lecture contents (various datalink systems).	200
5 /	Datalink (Part 2): Learn about wireless communication, PPP, public access network, etc.	Lecture and exercises	Review of lecture contents (various datalink systems), and preparation for Chapter 4 (IP protocol) of the textbook.	200
6 /	IP protocol: Learn about IP, IP address (IPv4/IPv6), routing, IP segmentation and reconstruction.	Lecture and exercises	Review not only the basic contents of IP and IP address calculation, but also the contents of the lectures learned in the first half.	200
7 /	Midterm Review: Test or exercises will be conducted to deepen understanding of the content and exercises relating to the lectures that have been given thus far.	Test or exercises	Preparation for Chapter 5 (Technologies related to IP) of the textbook.	200
8 /	IP related technologies: Learn about DNS, ARP, ICMP, DHCP, NAT, etc.	Lecture and exercises	Review of lecture contents (IP-related technologies) and preparation for Chapter 6 (TCP and UDP) of the textbook.	200
9 /	TCP and UDP (Part 1): Learn about TCP, UDP, port number, window control, retransmission control, flow control, and congestion control.	Lecture and exercises	Review and preparation for Chapter 6 (TCP and UDP) of the textbook.	200
10 /	TCP and UDP (Part 2): Learn about TCP, UDP, port number, window control, retransmission control, flow control, and congestion control. Additionally, exercises using these protocols will be conducted.	Lecture and exercises	Review of Chapter 6 (TCP and UDP) and preparation for Chapter 7 (Routing Protocol) of the textbook.	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Routing Protocol: Learn about static routing, dynamic routing, and routing algorithms such as RIP and OSPF.	Lecture and exercises	Review of lecture contents (Routing Protocol) and preparation for Chapter 8 (Application Protocol) of the textbook.	200
12 /	Application Protocol: Learn about the server-client communication mechanism using the TCP/IP protocol and actually use various protocols.	Lecture and exercises	Review of lecture contents (various protocols in Application layer) and preparation for Chapter 9 (security) and appendix (Physical layer) of the textbook.	200
13 /	Security and Appendix (Physical layer): Learn about the importance of network security in the Internet, its realization technologies and physical layer.	Lecture and exercises	Review of lecture content and review for final test.	200
14 /	Test: Through lectures by external lecturers, students will deepen their understanding of what they have learned so far, and confirm whether they have internalized the knowledge and skills they have learned.	Lectures by external lecturers & test	Review what you have learned so far.	200
15 /	Self-evaluate achievement and general exercise: Review the returned answer-sheet and confirm the level of understanding of the lecture. Through exercises, students will deepen their understanding of what they have learned.	Self-check and exercises (LAN-cable fabrication)	Review what you have learned so far.	200

2024 Syllabus

Instructor with "＊"means an instructor with company experience

Field	Course Name	Credits	Course Code	Semester	Class Style
Dept. S Specialized Info. Required	Business Accounting	2	551600	First	Lecture Total

Target Grade	Instructor	Office	E-mail Address	Office Hours
5	STEVENSON, Ian	Hakusanroku C: 101. 201		By appointment

Course Objectives

Keywords (10.5pt)		Learning Objectives (10.5pt)
1	Bookkeeping procedure	This course is for developing business, finance and accounting abilities in students. The goal is to learn the bookkeeping procedure which records the management efforts of the managers, and the financial statements which report the business results to the stakeholders of the company, and to acquire the ability to understand the actual management situation of the company through accounting information, such as statements, quarterly reports, etc..
2	Closing procedure	
3	Financial statements	
4	Depreciation	
5	Management indicators	

Course Description and Expectations for Students (10.5pt)

This course will provide total-time credits. 45 50-minute study times are worth one credit, and students need to have 30 50-minute self-study times for 15 50-minute classes.

This course introduces basic business and accounting principles to students. Students will practice and use these principles through a series of activities designed to strengthen and deepen student understanding of the material.

Required Materials (textbooks, reference books, reserved books) (10.5pt)

Textbooks:

Reference books:

Reserved books:

Knowledge/Skills Needed to Take This Course (Prerequisites) (10.5pt)

An interest in international business, business management principles and their application.

No.	Program Objectives	Target Abilities for Students (9pt)
①	b, i	Students will be able to understand assets, liabilities, capital, income, and expenses, and list specific item names.
②	b, i	Students will be able to understand bookkeeping procedures (journaling, posting, closing, preparing financial statements).
③	b, i	Students will be able to create a balance sheet and give an overview of the information that it displays.
④	b, i	Students will be able to create a profit and loss statement and give an overview of the information that it displays.
⑤	b, i	Students will be able to read and understand cash flow statements.
⑥	b, i	Students will be able to understand and explain basic accounting principles.

Evaluation Criteria

Criteria and Ratio \ Evaluation Method		Exams	Quizzes	Reports	Presentations	Works	Portfolios	Others	Total
Total Evaluation Ratio		30	30	40	0	0	0	0	100
Comprehensive Strength Criteria	Ability to capture knowledge	6	6	8	0	0	0	0	20
	Ability to think, reason and create	6	6	8	0	0	0	0	20
	Collaboration and leadership	6	6	8	0	0	0	0	20
	Announcement / Expression / Communication	6	6	8	0	0	0	0	20
	Attitude and motivation for learning	6	6	8	0	0	0	0	20

＊ The numerical breakdown shown by Comprehensive Strength Criteria is an approximate guideline for class management.

Evaluation Method

Evaluation Method	Target Ability		Evaluation Methods and Important Points (10.5pt)
Exams	①	レ	Students will be evaluated on a final exam.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Quizzes	①	レ	Students will be evaluated on a quiz.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Reports	①	レ	Students will be evaluated on their assignments for each unit.
	②	レ	
	③	レ	
	④	レ	
	⑤	レ	
	⑥	レ	
Presentations	①		
	②		
	③		
	④		
	⑤		
	⑥		
Works	①		
	②		
	③		
	④		
	⑤		
	⑥		
Portfolios	①		
	②		
	③		
	④		
	⑤		
	⑥		
Others	①		
	②		
	③		
	④		
	⑤		
	⑥		

Specific Achievement Criteria

Description of Ideal Achievement (10.5pt)	Description of Standard Achievement (10.5pt)
• Understand that accounting information is useful for making decisions for business owners and stakeholders. • Understand the "Bookkeeping cycle" to create accounting information and complete the exercises. • Be able to analyze financial statements and understand the business situation and problems of a company.	• Understand that accounting information is useful for making decisions for business owners and stakeholders. • Understand the "Bookkeeping cycle" to create accounting information and complete the exercises • Be able to create financial statements.

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
1 /	Guidance About accounting	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
2 /	Business simulation Exploration and discovery of concepts	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
3 /	Management resources Five elements of accounting	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
4 /	Transactions & Journals Journal entries and ledger postings	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
5 /	“Bookkeeping cycle” Create the trial balance of totals and balances	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
6 /	Wrap up and review for quiz	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
7 /	Quiz	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
8 /	Return and review quiz Accounting principles (GAAP)	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
9 /	Cost and depreciation	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
10 /	Balance sheet details and creation	Lecture Q&A Exercises	Review the handouts Finish the assignments	200

Course Schedule

* In the "Time" column of the Assignments, the standard time required for the specified assignment is provided. For total-time credit courses, please take the time corresponding to each class for review and preview. (For example, in the case of a 2-credit course, please try to take 200 minutes per week.) Please follow the teacher's guidance for details.

Class No. Date	Class Content (10pt)	Method (10pt)	Assignments (10pt) (Preview and Review)	Time (Minutes)
11 /	Profit and loss statement details and creation	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
12 /	Analysis of balance sheet and profit and loss statement	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
13 /	Cash flow statements Financial and Management accounting	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
14 /	Management analysis practice (MD & A)	Lecture Q&A Exercises	Review the handouts Finish the assignments	200
15 /	Review	Lecture Q&A Exercises	Review the handouts .	200
16 /	Final Exam			
17 /	Return and review final exam			