

Course Title (授業科目名)	Core Seminar
Course Category (授業科目区分)	General Education, Basic Core Seminar, Required
Students Admitted (授業対象学生)	First Year Mechanical and Aerospace Engineering Students
Course Code (授業科目コード)	
Course Description (講義題目)	A brief, simple research project
Course Type and Schedule (授業方法及び開講学期)	Seminar, Spring Semester, Monday, Fourth Period
Credits (単位数)	2
Instructor (担当教員名)	Mikhail Svinin
Prerequisite (履修条件)	This seminar is offered for G30 students
Course Outline (授業の概要)	A simple manipulation robot is to be studied in this class. First we will discuss basic geometry of the robot and its programming principles. Then, we assembly the robot, connect it to a computer and try to control it.
General Course Objectives (全体の教育目標)	To understand the principles principles of robot motions
Specific Course Objectives (個別の学習目標)	The main objective is to learn the fundamental concept of the joint and task spaces. Students will obtain experience in conducting simple research projects and presenting their results.
Course Plan (授業計画)	<ul style="list-style-type: none"> - Familiazrization with the research environment - Assembling a simple manipulation robot - Discussion on basic geometry of robot movements - Assembling a software tool to control the robot - Conducting a simple experiment. - Discussion on robot programming - Writing reports and preparing presentation.
Keywords (キーワード)	robot motion and control
Method of Instruction (授業の進め方)	The course will be taught by means of small group tutorials, library asignments, and experiments.
Text and References (教科書及び参考図書)	recommended but not required, Matthew T. Mason, "Mechanics of Robotic Manipulation", MIT Press, 2001.
Office Hours (学習相談)	Office: Room 424, West 4 building, Ito campus Email: svinin@mech.kyushu-u.ac.jp
Grading (試験・成績評価の方法)	Attendance and attitude: 30%, Presentation: 40%, Report: 30%.
Notes (その他)	

Module Code	
Course Subject Classification	Humanities and Social Science Core Subjects
Course Title	Intercultural Encounters
Intended Students	International Undergraduate Program in English
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Wednesday, 2nd period (10.30-12.00)
Subject Area	Social Science, Cultural Studies
Campus	Ito campus
Credit	
Course Tutor	Andrew Painter
TA	
Pre-requisites	
Course Overview	Students will study cultural and social dynamics at both the theoretical and practical levels. Intercultural and intracultural interactions will be theorized and illustrated through lectures, films, and ethnographic case studies.
Study Objectives (general)	This course will equip students with a basic understanding of social theory and its various applications. Specific Goals:
Study Objectives (specific)	Students learn to read critically and discuss social issues in an open-minded way.
	Students will become familiar with ethical issues involved in social research and applied anthropology.
	Students learn the basics of fieldwork techniques, including participant observation, and carry out their own original research projects.
	Students will learn to use film and other visual texts as resources for academic research and analysis.
Study consultation (office hour)	Office: office #231, FLC Bldg. Hibun. Office Hours: Wednesdays, 2:40-3:00pm Email: andypainter24@me.com Phone: x5737
Course Plan	The course plan can be tentative and adjust according to the reactions of the students. However, it is useful for the students to know the course plan in advance so that they can prepare and plan their study. e.g. Tentative Weekly Schedule: 1. 4/16. Overview. What is culture and why study it? 2. 4/23. Cultural Anthropology and the importance of comparison. 3. 4/30. Intercultural Dynamics. 4. 5/7. Case Study--The Culture of Disc Golf. 5. 5/14. Subcultures and Style. <u>Learning to Labour</u> . 6. 5/21. Disc Golf Practicum. 7. 5/28. Education and social control seen cross-culturally. 8. 6/4. In class, student-led discussion. 9. 6/11. In-class Midterm. 10. 6/18. Cultural Studies and Media Studies. 11. 6/25. Ethnographic film. 12. 7/2. Student-led discussion. 13. 7/9. Student Presentations. 14. 7/16. Student Presentations. 15. 7/30. Final Paper submission.
Textbooks	All readings will be made available by the instructor in PDF form.
Exams/Results Evaluation Method	1. Students will be graded based on attendance, in-class participation, written work, and oral presentations.
	2. Final papers based on students own original research is due the last day of class.
	3. The basic standard of the assessment is: attendance 10%, In-class participation 20%, written work 50%, and oral presentations 20%.
Others	
Link(s)	Kyushu University www.kyushu-u.ac.jp

Module Code	
Course Subject Classification	Required core subject
Course Title	Academic Writing and Presentation I
Intended Students	School of Engineering/ Agriculture
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Thursday 4th period
Subject Area	
Campus	Ito campus
Credit	
Course Tutor	None
TA	None
Pre-requisites	None
Course Overview	Students will learn the basic components required in written academic work. Paragraphs, essays and how to cite sources of research will all be addressed in this class
Study Objectives (general)	This course is designed to teach students how to compose well-organized paragraphs and essays in English.
Study Objectives (specific)	<p>A. Students will practice constructing sentences, paragraphs, and essays with appropriate grammar, vocabulary and written structure.</p> <p>B. Students will be expected to write in English without overuse or misuse of bilingual dictionaries.</p> <p>C. Students can write through a process involving generating ideas, outlining, drafting, editing, and proofing.</p> <p>D. Students can write logically organized paragraphs (cf. topic sentence, supporting sentences, coherence, cohesion, unity, and completeness.)</p> <p>E. Students can understand the organization of an essay consisting of an introduction, body and conclusion.</p>
Study consultation (office hour)	Office: Genbun Building # 210. Office Hours: Tuesday 10:30-12:00 Email: mguinn@flc.kyushu-u.ac.jp Phone: 802-5720
Course Plan	<p>The course plan can be tentative and adjust according to the reactions of the students. However, it is useful for the students to know the course plan in advance so that they can prepare and plan their study.</p> <p>e.g. Tentative Weekly Schedule:</p> <ol style="list-style-type: none"> 1. 4/14. Overview of the course. Organization of Paragraphs Chapter 1. Quotation rules. 2. 4/21. Chapter 1 continued. Computer formatting explained. 3. 4/28. Chapter 2 Characteristics of Good Writing 4. 5/12. Assignment #1 (paragraph) due. Chapter 4 From Paragraph to Essay. 5. 5/19. Assessment of Assignment #1. Chapter 5 The Thesis Statement. 6. 5/26. Continue Chapter 5. 7. 6/2. Chapter 6. The Introductory Paragraph. 8. 6/9. Chapter 7. The Concluding Paragraph. First draft of Essay due. 9. 6/16. Chapter 8. Body Paragraphs. Second draft of Essay due. 10. 6/23. Essay due. Chapter 9 Process 11. 6/30. Chapter 10 Classification 12. 7/7. Chapter 11 Persuasion 13. 7/14. Chapter 12 Comparison and Contrast 14. 7/21. Review and Discussion 15. 7/28. Final Exam.
Textbooks	NA
Exams/Results Evaluation Method	<p>1. Assessment will be based on the assignments (due week 4 and week 10) as well as the final exam at the end of the term.</p> <p>2. All submissions should take place during the week when work is due. Resubmissions will take place until an assignment is satisfactorily completed.</p> <p>3. Grades will be assessed as follows: 15% for Assignment #1, 25% for Assignment #2, 40% for the final exam, and 20% for attendance and participation</p>
Others	
Link(s)	Kyushu University www.kyushu-u.ac.jp

Module Code	
Course Subject Classification	Required core subject
Course Title	Academic Writing and Presentation I
Intended Students	G30
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Thursday 4th period
Subject Area	
Campus	Ito campus
Credit	
Course Tutor	None
TA	None
Pre-requisites	None
Course Overview	Students will learn the basic components required in written academic work. Paragraphs, essays and how to cite sources of research will all be addressed in this class
Study Objectives (general)	This course is designed to teach students how to compose well-organized paragraphs and essays in English and give an oral presentation.
Study Objectives (specific)	<p>A. Students will practice constructing sentences, paragraphs, and essays with appropriate grammar, vocabulary and written structure.</p> <p>B. Students will be expected to write in English without overuse or misuse of bilingual dictionaries.</p> <p>C. Students can write through a process involving generating ideas, outlining, drafting, editing, and proofing.</p> <p>D. Students can write logically organized paragraphs (cf. topic sentence, supporting sentences, coherence, cohesion, unity, and completeness.)</p> <p>E. Students can understand the organization of an essay consisting of an introduction, body and conclusion.</p> <p>F. Students can give an oral presentation</p>
Study consultation (office hour)	<p>Michael Guinn Office: Genbun Building # 210. Office Hours: Tuesday 10:30-12:00 Email: mguinn@flc.kyushu-u.ac.jp/ Phone: 802-5720</p> <p>Gabrielle Decamous Office: Gabrielle Decamous SCS-FLC Building, Room 206 Email: g.decamous@flc.kyushu-u.ac.jp</p>
Course Plan	<p>The course plan can be tentative and adjust according to the reactions of the students. However, it is useful for the students to know the course plan in advance so that they can prepare and plan their study. e.g. Tentative Weekly Schedule:</p> <p>Week 1: Introduction Citing- reminder Week 2: Persuasive Essay Week 3: Cause and Effect Essay Week 4: Problem Solving Essay Week 5: Homework Essay – Peer Editing Week 6: Research Methods Week 7: Presentation Week 8: Developing Arguments Week 9: Complex Arguments Week 10: Checking Understanding Week 11: Small Group Presentations Week 12: Diplomatic Language Week 13: Using Your Voice Week 14-15: Individual Presentations</p>
Textbooks	
Exams/Results Evaluation Method	<p>1. Homework essays 20% (1 x 500 words)</p> <p>2. Oral presentation 20% (10-15 min + discussion)</p> <p>3. Term paper 40% (800-1000 words)</p> <p>4. Attendance/participation 20%</p>
Others	
Link(s)	Kyushu University www.kyushu-u.ac.jp

Module Code	
Course Subject Classification	Required Core Subject
Course Title	Introduction to Japanese Culture and Society
Intended Students	
Taught Year	The 1st year
Course Year	2013
Course Term	Spring Semester
Taught Day	Friday, the 4th period (14:50-16:20)
Subject Area	
Campus	Ito campus
Credit	2
Course Tutor	Yoshio Fuchida, Takuo Kominato, Mika Tamura, Yi Zhu
TA	
Pre-requisites	
Course Overview	<p>This course aims to help students to adjust to life in Japan through a better understanding and deeper knowledge of Japanese history and culture. To achieve this goal, the course will introduce students to traditional events and art practices in local community. The course is intended for students to gain understanding for diversity and a perspective towards permissivity based on the understanding of the difference between Japanese tradition, culture, custom, value, etc. and those of students' own backbone through experiences.</p> <p>Students are expected to be able to explain the shebang of Japanese tradition and culture, and to describe the difference between the value that Japanese people share and that exist in the students' own culture.</p>
Study consultation	<p>Yoshio Fuchida Center Zone 3, Fl.6, Room 3610 Email: fuchita@artsci.kyushu-u.ac.jp</p> <p>Takuo Kominato Center Zone 3, Fl.5, Room 3502 Email: kominato@artsci.kyushu-u.ac.jp</p> <p>Mika Tamura West Zone 4, Fl.3, Room W4-309 Email: mikatamura@mail.cstm.kyushu-u.ac.jp</p> <p>Yi Shu Center Zone 1, Fl.4, Room 1409</p>
	<p>April 11 Introduction UNIT 1: EXPLORING JAPANES FOOD April 18 Lecture & Discussion April 25 No class May 2 Field Trip to a factory (4th & 5th period) May 16 Review & Presentation UNIT 2: EXPLORING JAPANESE CLOTHES May 23 Lecture & Discussion May 30 No class June 6 Trial Fitting of Yukata (4th & 5th period) June 13 Review & Presentation UNIT 3: EXPLORING JAPANESE TRADITIONAL EVENT June 20 No class June 27 Lecture & Discussion July 4 Visit to a Shinto shrine and a temple (4th & 5th period) July 11 No class July 18 Review & Presentation</p>
Textbooks	There are no required textbooks for this class.
Exams/Results Evaluation Method	<p>1. Presentation 30%</p> <p>2. Papers (30%each) 60%</p> <p>3. Class participation/attendance 10%</p>
Others	
Link(s)	

Module Code	
Course Subject Classification	Basic Science Core Subject
Course Title	Calculus B
Intended Students	Faculty of Agriculture and School of Engineering
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Monday, 3rd period (13:00-14:30)
Subject Area	
Campus	Ito campus
Credit	1.5
Course Tutor	Craig Pastro
TA	
Pre-requisites	Calculus A
Course Overview	Students will continue their study of calculus. Main topics will be techniques and applications of integrations, sequences and series, and multivariable functions and partial differentiation.
Study Objectives (general)	This course is a continuation of Calculus A designed to teach students the basics of calculus. If Calculus A is the study of differential calculus, then Calculus B may be called the study of integral calculus. There are three main topics of study. (1) Techniques to evaluate integrals and applications of integrals, such as finding the area between curves and indefinite integrals. (2) Sequences and series, convergence, power series, radius of convergences, Taylor series. (3) Functions of more than one variable (multivariable functions) and partial differentiation, Lagrange multipliers.
Study Objectives (specific)	In this course we will cover the following topics: 1. Transcendental functions: e and log; Inverse and hyperbolic trigonometric functions; Integration of these functions 2. Further techniques of integration 3. Sequences and series; Convergence of series; Power series, radius of convergence; Taylor series 4. Multivariable functions; Limits of multivariable functions; Partial derivatives; Tangent planes; Extreme values; Lagrange multipliers
Study consultation (office hour)	Office: Center Zone 3, Room 601 Office Hours: To be decided Email: craig@artsci.kyushu-u.ac.jp
Course Plan	We will cover (most parts of) Chapters 7, 8, 11, and 14 in the textbook. Please see the course website (http://goo.gl/LgIPAG) for a more detailed schedule.
Textbooks	Thomas' Calculus 11th Edition Media Upgrade
Exams/Results Evaluation Method	Weekly homework 20% (lowest mark will be dropped), Midterm 30%, Final 50%. Your grade = max{overall score, score on final}. However, you must pass the final exam in order to pass the course.
Others	
Link(s)	Course webpage: http://goo.gl/LgIPAG

Course Subject Classification	Natural Science Core Subject
Course Title	Environmental Geoscience
Intended Students	International Undergraduate Program in English
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Wednesday, the 3rd period (13.00-14.30)
Subject Area	Structure and history of the Earth
Campus	Ito campus
Credit	2
Course Tutor	K. Watanabe
TA	
Pre-requisites	Basic knowledge in chemistry and biology
Course Overview	This course overviews physical-chemical-biological processes that control the environmental conditions of the Earth surface, and provides basic knowledge of natural hazards and resources, which are useful for agriculture and environmental technology.
Study Objectives (general)	This course is designed to teach students interaction between the life and the Earth environment. Specific Goals: Understanding material circulation in the Earth surface, climatic changes during the Earth history, processes and environmental impact of the biosphere, and history of the biological evolution.
Study Objectives (specific)	What students can acquire in terms of knowledge and skills and what they can apply the knowledge and skills to. The subject is 'students' A. Students can understand what is the basic requirement for the habitable planets. B. Students can understand the processes controlling the Earth climate. C. Students can have own opinion to build sustainable system for human life. D. Students can understand processes of natural hazards. E. Students can understand how the natural resources have formed.
Study consultation (office hour)	Office: By Appointment Email:wat@mine.kyushu-u.ac.jp Phone: 802-3311
Course Plan	The course plan can be tentative and adjust according to the reactions of the students. However, it is useful for the students to know the course plan in advance so that they can prepare and plan their study. Tentative Weekly Schedule: 4/16 Lecture 1: Introduction to Environmental Geoscience (Pr. Watanabe) 4/23 Lecture 2: Carbon Cycle and Paleoclimate (Pr. Kano) 4/30 Lecture 3: Life History (Pr. Kano) 5/07 Lecture 4: Earth's Interior (Dr. Saibi) 5/14 Lecture 5: Plate Tectonics and Plume Tectonics (Dr. Saibi) 5/21 Lecture 6: Earthquake and Related Phenomena I (Dr. Saibi) 5/28 Lecture 7: Earthquake and Related Phenomena II (Dr. Saibi) 6/04 Lecture 8: Mid-term Test 6/11 Lecture 9: Volcanic Activity and Environment (Pr. Watanabe) 6/18 Lecture 10 : Energy and Environment I (Pr. Watanabe) 6/25 Lecture 11: Energy and Environment II "Renewable Energies" (Dr. Saibi) 7/02 Lecture 12: Energy and Environment III "Geothermal Energy" (Dr. Saibi) 7/09 Lecture 13: Mineral Resources (Pr. Watanabe) 7/16 Lecture 14: Topical lecture : Not decided (Pr. Osanai) 7/30 Lecture 15: Environmental Impact due to Mining (Pr. Watanabe)
Textbooks	Not specified
Exams/Results Evaluation Method	1. Attendance and brief writing after each lecture (50%) 2. Report after the practice (20%), 3. Exams (30%)

Module Code	
Course Subject Classification	Core Seminar
Course Title	Core Seminar
Intended Students	First Year Mechanical and Aerospace Engineering Students
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Monday, the 4th period
Subject Area	
Campus	Ito campus
Credit	
Course Tutor	Toshihiro Sera
TA	Shota Hori, Xiaochen Wang
Pre-requisites	
Course Overview	In this class, the students experience manufacturing by themselves and learn the presentation skill. In particular, a wind car is designed and produced. Finally, a race will be held. The students discuss the race results and their product, and make presentation.
Study Objectives (general)	This course is designed to experience manufacturing by themselves and learn the presentation skill of their products. Specific Goals:
Study Objectives (specific)	Students experience manufacturing by themselves.
	Students learn the fundamental concept of manufacturing, such as machine design and manufacturing.
	Students learn the discussion skill and the improvement action through manufacturing.
	Students learn the presentation skill.
Study consultation (office hour)	Office: Room 542, West 4, Ito campus Office Hours: Wednesdays, 3:00-4:00PM Email: sera@mech.kyushu-u.ac.jp Phone: 3070
Course Plan	The course plan can be tentative and adjust according to the reactions of the students. However, it is useful for the students to know the course plan in advance so that they can prepare and plan their study. e.g. Tentative Weekly Schedule: 1. Overview 2. Planning of Design concept of wind car 3. Trial Product 4. Check & Improvement 5. Race 6. Discussion on race results 7. Writing reports and preparing presentation
Textbooks	
Exams/Results Evaluation Method	Attendance: 30%, Presentation: 40%, Report: 30 %
Others	
Link(s)	Up to five links (url) Title(Left side) URL (Right) e.g. Kyushu University www.kyushu-u.ac.jp

Module Code	
Course Subject Classification	Subject for Languages and Cultures
Course Title	Argumentation & Debate I
Intended Students	All
Taught Year	1st Year
Course Year	2014
Course Term	Spring Semester
Taught Day	Thursday, 2nd period (10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	1
Course Tutor	Narahiko INOUE
TA	
Pre-requisites	None.
Course Overview	This course is an introduction to argumentation and debating in English. In this course, students will learn how to argue in English by participating in competitive debates. They will learn step by step how to prepare for participating in competitive debates. The steps include (1) analyzing the topic, (2) researching the topic, (3) preparing arguments for and against the topic, (4) writing speeches, (5) preparing questions and answers, (6) delivering speeches, and (7) taking notes in debate. Students will form debate teams and participate in debates. Toward the end of the semester, all the students from this section and Professor Aleles' section of the course will participate in the Classroom Debate Tournament.
Study Objectives (general)	This course is designed to teach students basics in argumentation and debating in English.
Study Objectives (specific)	(1) Students will be able to analyze debate resolutions. (2) Students will be able to give an organized speech supporting a position. (3) Students will be able to refute the opposing arguments. (4) Students will be able to evaluate a debate.
Study consultation (office hour)	Office: SCS-FLC Building 307 Office Hours: Tuesday 2nd period or by appointment Email: inouen@flc. Phone: Ito x5747
Course Plan	Tentative Schedule of the Topics 1. 4/17. 1 What is debate? Why debate? 2. 4/24. What is a good debate proposition? 3. 5/1. Choosing the class proposition. 4. 5/8. Analysis. 5. 5/15. Research. 6. 5/22. Writing speeches. 7. 5/29. Delivery & Note-taking. 8. 6/5. Delivery & Cross-examination. 9. 6/12. Refutation & Rebuttal. 10. 6/19. Rules and Judging. 11. 6/26. Preparation for debate. 12. 7/3. Debate 1. 13. 7/10. Debate 2. 14. 7/17. Debate 3. 15. 7/24. Debate 4. 16. 7/31. Final round. Detailed classroom activities and homework assignments will be explained in the 1st meeting in class.
Textbooks	Textbook: Inoue, 2006. Let's Practice Debating in English (Revised) (Handout) Reference Book: Freeley & Steinberg, 2009. Argumentation & Debate: Critical Thinking for Reasoned Decision Making. (Several copies will be available in the G30 program.)
Exams/Results Evaluation Method	The grade will be based on the assigned tasks (50%) and participation (not winning) in debates as a debater and a judge (50%). Students are required to attend all classes and submit each assignment without delay. There will be no final examination or paper.
Others	1. There will be some Japanese students taking this course. 2. One class meeting (6/6, 13, or 20) may be a special session with a visiting American debate team.
Link(s)	Professor Inoue's Home Page: http://www.flc.kyushu-u.ac.jp/~inouen/

Module Code	
Course Subject Classification	Subject for Languages and Cultures
Course Title	Argumentation & Debate I
Intended Students	All
Taught Year	1st Year
Course Year	2014
Course Term	Spring Semester
Taught Day	Thursday, 2nd period (10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	1
Course Tutor	Jonathan Aleles
TA	
Pre-requisites	None.
Course Overview	This course is an introduction to argumentation and debating in English. In this course, students will learn how to argue in English by participating in competitive debates. They will learn step by step how to prepare for participating in competitive debates. The steps include (1) analyzing the topic, (2) researching the topic, (3) preparing arguments for and against the topic, (4) writing speeches, (5) preparing questions and answers, (6) delivering speeches, and (7) taking notes in debate. Students will form debate teams and participate in debates. Toward the end of the semester, all the students from this section and Professor Aleles' section of the course will participate in the Classroom Debate Tournament.
Study Objectives (general)	This course is designed to teach students basics in argumentation and debating in English.
Study Objectives (specific)	(1) Students will be able to analyze debate resolutions. (2) Students will be able to give an organized speech supporting a position. (3) Students will be able to refute the opposing arguments. (4) Students will be able to evaluate a debate.
Study consultation (office hour)	Office: SCS-FLC Building 303 Office Hours: Tuesday 2nd period or by appointment Email: aleles@flc. Phone: Ito x5743
Course Plan	Tentative Schedule of the Topics 1. 4/17. 1 What is debate? Why debate? 2. 4/24. What is a good debate proposition? 3. 5/1. Choosing the class proposition. 4. 5/8. Analysis. 5. 5/15. Research. 6. 5/22. Writing speeches. 7. 5/29. Delivery & Note-taking. 8. 6/5. Delivery & Cross-examination. 9. 6/12. Refutation & Rebuttal. 10. 6/19. Rules and Judging. 11. 6/26. Preparation for debate. 12. 7/3. Debate 1. 13. 7/10. Debate 2. 14. 7/17. Debate 3. 15. 7/24. Debate 4. 16. 7/31. Final round. Detailed classroom activities and homework assignments will be explained in the 1st meeting in class.
Textbooks	Textbook: Inoue, 2006. Let's Practice Debating in English (Revised) (Handout) Reference Book: Freeley & Steinberg, 2009. Argumentation & Debate: Critical Thinking for Reasoned Decision Making. (Several copies will be available in the G30 program.)
Exams/Results Evaluation Method	The grade will be based on the assigned tasks (50%) and participation (not winning) in debates as a debater and a judge (50%). Students are required to attend all classes and submit each assignment without delay. There will be no final examination or paper.
Others	1. There will be some Japanese students taking this course. 2. One class meeting (6/6, 13, or 20) may be a special session with a visiting American debate team.
Link(s)	

Course Subject Classification	Language and Cultures Subjects
Course Title	Basic Japanese II (Class A)
Intended Students	IUPE
Taught Year	1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Monday, 2nd period (10.30-12.00) / Tuesday, 1st & 2nd period (8.40-10.10 & 10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	3
Course Tutor	Akiko YAMADA, Miwa RIKIMARU, Noriko GOTO
TA	
Pre-requisites	This course is designed for students who are able to construct past and negative forms of verbs and adjectives.
Course Overview	The main purpose of this course is to cultivate students' overall Japanese-language ability by developing their basic skills in listening, speaking, reading, and writing.
Study Objectives (general)	This course is designed to provide the key foundations of Japanese language.
Study Objectives (specific)	A. Students will learn useful Japanese expressions necessary for everyday communication. B. Students can communicate with Japanese people using basic grammar and vocabulary they have learned. C. Students can express themselves and familiar matters using the grammar and vocabulary they have learned. D. Students can understand summaries of short essays written in simple grammar and vocabulary they have learned.
Study consultation (office hour)	Office: ISC Building 401 at Hakozaki Campus Email: yamada@isc.kyushu-u.ac.jp Phone: Hakozaki x4202
Course Plan	This course consists of three blocks. Tentative Weekly Schedule: 【Block1】 1.-2. Overview. Last Semester Review. 3.-12. "GENKI1":Lesson 5-8. (Grammar and Vocabulary) 13. L5-8 Review. 14.-15. Final Exam. (Paper Test and Interview) 【Block2】 1.Last Block Review. 2.-8., 12. "GENKI1":Lesson 9-12. (Grammar and Vocabulary) 9.-11. Visiting an elementary school. (Preparation, Visiting and Reflection) 14. L9-12 Review. 15. Final Exam.(Paper Test) 【Block3】 1.Last Block Review. 2.-10. "GENKI2":Lesson 13-15. (Grammar and Vocabulary) 11.-12. Presentation. (Individual) 13. L13-15 Review. 14.-15. Final Exam.(Paper Test and Interview)
Textbooks	Eri Banno et al. (2011), "Genki 1&2: An Integrated Course in Elementary Japanese 1&2", (2nd edition), The Japan Times.
Exams/Results Evaluation Method	All blocks will be evaluated on the same criteria as shown below; Exam:30%, Homework:20%, Quiz:20%, Composition&Presentation:20%, In class activity:10%
Others	
Link(s)	

Course Subject Classification	Language and Cultures Subjects
Course Title	Basic Japanese II (Class B)
Intended Students	IUPE
Taught Year	1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Monday, 2nd period (10.30-12.00) / Tuesday, 1st & 2nd period (8.40-10.10 & 10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	3
Course Tutor	Akiko YAMADA, Tingshi JIN, Noriko GOTO
TA	
Pre-requisites	This course is designed for students who have already studied the grammar and vocabulary of the first section of the elementary level ("Genki1").
Course Overview	The main purpose of this course is to develop the four basic language skills (listening, speaking, reading, and writing), which aims to cultivate overall Japanese-language ability.
Study Objectives (general)	This course is designed to teach students how to communicate smoothly in daily life.
Study Objectives (specific)	A. Students will learn basic grammar and vocabulary. B. Students can communicate smoothly using the grammar and vocabulary they have learned. C. Students can communicate in simple and routine tasks (e.g. asking for help, getting informations). D. Students can describe their experience and ideas using the grammar and vocabulary they have learned. E. Students can understand summaries of essays and short articles written in the grammar and vocabulary they have learned.
Study consultation (office hour)	Office: ISC Building 401 at Hakozaki Campus Email: yamada@isc.kyushu-u.ac.jp Phone: Hakozaki x4202
Course Plan	This course consists of three blocks. Tentative Weekly Schedule: 【Block1】 1. Overview. Last Semester Review. 2.-12. "GENKI 2":Lesson 13-17. (Grammar and Vocabulary) 13. L13-17 Review. 14.-15. Final Exam. (Paper Test and Interview) 【Block2】 1.Last Block Review. 2.-8., 12. "GENKI 2":Lesson 18-20. (Grammar and Vocabulary) 9.-11. Visiting an elementary school. (Preparation, Visiting and Reflection) 14. L18-20 Review. 15. Final Exam.(Paper Test) 【Block3】 1.Last Block Review. 2.-11. "GENKI 2":Lesson 21-23. (Grammar and Vocabulary) 12. Presentation. (Individual) 13. L13-15 Review. 14.-15. Final Exam.(Paper Test and Interview)
Textbooks	Eri Banno et al. (2011), "Genki 2: An Integrated Course in Elementary Japanese 2", (2nd edition), The Japan Times.
Exams/Results Evaluation Method	All blocks will be evaluated on the same criteria as shown below; Exam:30%, Homework:20%, Quiz:20%, Composition&Presentation:20%, In class activity:10%
Others	
Link(s)	

Course Subject Classification	Language and Cultures Subjects
Course Title	Basic Japanese II (Class C)
Intended Students	IUPE
Taught Year	1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Monday, 2nd period (10.30-12.00) / Tuesday, 1st & 2nd period (8.40-10.10 & 10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	3
Course Tutor	Akiko YAMADA, Tingshi JIN, Noriko GOTO
TA	
Pre-requisites	This course is intended for those who have learned the intermediate level of grammar and vocabulary.
Course Overview	The main purpose of this course is to improve and acquire well-balanced language skills (listening, speaking, reading, and writing).
Study Objectives (general)	This course is designed to teach students how to express their ideas and enhance their skills by themselves as well.
Study Objectives (specific)	A. Students can accurately use the grammar and vocabulary at the intermediate level. B. Students can communicate in routine tasks (e.g. asking for help, getting informations). C. Students can express themselves in formal or informal situations with appropriate linguistic forms. D. Students can state opinions and give explanations on certain social topics. E. Students can understand articles and reports concerned with current issues. F. Students can write essay or report using valid reasons and relevant examples.
Study consultation (office hour)	Office: ISC Building 401 at Hakozaki Campus Email: yamada@isc.kyushu-u.ac.jp Phone: Hakozaki x4202
Course Plan	This course is divided into three classes (Kanji and Vocabulary class, Conversation class, and Writing class). Tentative Weekly Schedule: 【Kanji and Vocabulary: Mon.2nd period】 1. Overview. Last Semester Review. 2.-14. 『INTERMEDIATE KANJI BOOK Vol.1』:Lesson 7-10./ Review. 14.-15. Final Exam. (Paper Test) 【Conversation: Tue.1th period】 1. Overview. 2.-6. 『日本語生中継』:Lesson1-3. 7. Mid-term Exam. (Role Play) 8.-14. 『日本語生中継』:Lesson5-7. 15. Final Exam. (Role Play) 【Writing: The. 2nd period】 1. Overview. 2.-7. Grammar Practice. / Writing Task. 8.-9. Visiting an elementary school. (Preparation and Reflection, Visiting:6/16 on Monday) 10.-14. Grammar Practice. / Writing Task. 15. Final Exam. (Paper Test and Interview)
Textbooks	【Kanji and Vocabulary】加納千恵子他 (1997)『INTERMEDIATE KANJI BOOK Vol.1』凡人社 【Conversation】榎本総子他(2004)『聞いて覚える話し方 日本語生中継 中～上級編』くろしお出版 【Writing】 None
Exams/Results Evaluation Method	【Kanji and Vocabulary】Exam:40%, Homework, Quiz:40%, In class activity:20% 【Conversation】Exam:30%, Homework:30%, In class activity:30%, Attendance:10% 【Writing】Exam:30%, Homework:30%, Quiz:20%, In class activity:10%
Others	
Link(s)	

Module Code	
Course Subject Classification	Health and Sports Sciences Subject
Course Title	Laboratory of Health and Sports Science
Intended Students	International Undergraduate Program in English
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Tuesday, the 4th period (14.50-16.20)
Subject Area	
Campus	Ito campus
Credit	2
Course Tutor	SUGIYAMA, Yoshio
TA	SHI, Meichao
Pre-requisites	None
Course Overview	Students learn basics in - issues relating to health sciences, - significance of aerobic exercise, - principles of strength training, and - appropriate way coping with mental stress through physical activity and measurements of own physical fitness in class and homework assignments.
Study Objectives (general)	This course is designed to teach students how to promote and keep own health and physical fitness. Specific Goals: To understand good ways for healthy life and its scientific background, and to practice them.
Study Objectives (specific)	Students will - understand appropriate exercises for health promotion, - understand measurements of health-related physical fitness, - make an appropriate plan for promoting own physical fitness, based on the measurement, - learn how to gain basic motor skills and manners for sports activities, and - learn basic life skills including stress coping skill, goal-setting skill, leadership skill, communication skill, etc.
Study consultation (office hour)	Office: Gym at Ito campus. The instructor's main office is at Chikushi campus. Office Hours: 13.00-14.30 Tue, and after the class. Email: sugiyama.yoshio.454 (at) m.kyushu-u.ac.jp (feel free to send an e-mail) Phone: 092-583-7856
Course Plan	1. Orientation, and Measurement of pulse rate. 2. Stretching practice, and Communication Games (Ice breaking of the class). 3. Stress coping skill training. 4. Physical and strength measurement. 5. Measurement of maximal oxygen uptake. 6. Measurement of muscular fitness and agility. 7. Goal-setting skill training (1). 8. Goal-setting skill training (2). 9. Leadership and Communication skills training (1). 10. Leadership and Communication skills training (2). 11.-14. Integrated life skills training. 15. Summary and Review.
Textbooks	[Health/Exercise and Sports Science through practical training] edited by Institute of Health Science, Kyushu University [Health/Exercise and Sports Science through practical training Supplement] edited by Institute of Health Science, Kyushu University ※ Not for sale
Exams/Results Evaluation Method	Subject for calculation of GPA The breakdown of the grade is 1) participation in class (attitude and readiness) 60 points, 2) written assignment 30 points (10 points times three) , and 3) notetaking on the supplement 10 points. Note that both attendance of over 3/4 and submitting all three written assignments are required for Credit Transfer. Please remember to write your name, department, and date on A4 sheets when you submit assignments.
Others	1) Except for the 1st lesson, athletic wear (attire worn for sport) is required. Wearing jeans or skirt are not allowed. Following this rule is important for your and your friends' safety. 2) The place of the class is changed every week (we will use one of four rooms in the gym and ground). The instructor tell you the place in advance. Also make sure the location by the white board at the 2nd floor of Gymnasium before the class. 3) Bring your indoor (Gym) athletic shoes. When the class is outside, bring your outdoor athletic shoes. Always use the appropriate pair for indoor and outdoor activities. Using outdoor shoes will scratch the gym's floor.
Link(s)	

Module Code	
Course Subject Classification	Fundamental Subject for Natural Science Field
Course Title	Linear Algebra with Exercises A
Intended Students	G30 program
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Thursday, the 3rd period (13.00-14.30)
Subject Area	Mathematics
Campus	Ito campus
Credit	1.5
Course Tutor	Mikhail Svinin
TA	Hao Liu
Pre-requisites	Basic knowledge of mathematics (pre-calculus level)
Course Overview	The knowledge of linear algebra is fundamental to every field of mathematics. It is one of the areas of mathematical education that are essential for studying basic science and advance engineering. In this class, students will learn the basics of linear algebra through class lectures, class exercises, homeworks, and examinations.
Study Objectives (general)	This course is designed to teach students the basics of linear algebra, including solving systems of linear equations, and operating with vector and matrices. This course is a prerequisite to Linear Algebra with Exercise B. Specific Goals: In this course emphasis is given to the following topics. 1. Systems of linear equations; 2. Matrix operations; 3. Inverse matrices; 4. Vectors spaces and linear independence; 5. Orthogonality of vector spaces.
Study Objectives (specific)	In this class the students can acquire the following knowledge and skills. A. Students can operate with vectors and matrices. B. Students can compose and solve systems of linear equations directly, by forward elimination and back substitution, and by using the matrix inverse. C. Students can define the rank of matrices and compute the inverse of a square matrix. D. Students can understand the concept of linear independence of vectors and apply it specific problems. E. Students can understand the concept of vector spaces and subspaces. F. Students can define the dimension and construct a basis of a linear subspace.
Study consultation (office hour)	Office: West Building No. 4, Room No. 424 Office Hours: By appointment Email: svinin@mech.kyushu-u.ac.jp Phone: 802-3181
Course Plan	We will try to follow the textbook (see below) as closely as possible. Tentative Weekly Schedule: 1. Three dimensional space, equation of line and plane. Introduction to vectors. 2. Solving linear equation by forward elimination and back substitution. 3. Matrices and matrix operations. 4. Inverse matrices. 5. Vector spaces and subspaces. 6. The null space of a matrix. 7. The rank of a matrix and the row reduced form. 8. Complete solution to a linear system. 9. Linear dependence and independence of vectors, basis and dimension. 10. Mid-term exam. 11. The four fundamental subspaces associated with a matrix. 12. Orthogonality of the four subspaces associated with a matrix. 13. Projections. 14. Least squares approximations. 15. Orthogonal bases and Gram-Schmidt procedure. 16. Final Exam.
Textbooks	Gilbert Strang (2009), Introduction to Linear Algebra, Fourth Edition, Cambridge Press. Up to Chapters 1,2,3,4. (The remaining chapters will be used in Linear Algebra With Exercises B in the 2nd Semester.)
Exams/Results Evaluation Method	1. Brief explanation of the method(s) of the assessment. This course will involve classes and regular assignments. Also, there will be two exams, the mid-term one and the final one. Students who will attend less than two thirds of the classes will be excluded from the final exam. 2. Note that it is not necessary to complete the assignments in order to pass the course. However, if you are able to complete the assignments, you should have no problems in passing the examinations. 3. The basic standard of the assessment. Activity in class: 10%, Home work assignmnts: 10%, Mid-term examination: 30%, Final examination: 50%
Others	
Link(s)	

Module Code	
Course Subject Classification	Fundamental Subject for Natural Science Field
Course Title	Descriptive Geometry
Intended Students	Engineering and Agriculture
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Wednesday, the 4th period (14.50-16.20)
Subject Area	
Campus	Ito Campus
Credit	2
Course Tutor	Joichi Sugimura, Ayaka Otsuki
TA	
Pre-requisites	
Course Overview	Lectures and exercises to learn how to represent three-dimensional objects on two-dimensional planes, and to understand three-dimensional objects from two-dimensional graphics.
Study Objectives (general)	Gain understanding of fundamentals of descriptive geometry for engineering
Study Objectives (specific)	Basics of descriptive geometry A. Understand basics of projections B. Understand basics of views C. Understand methods to obtain distance, angle, intersections, etc. between lines and planes D. Understand how to obtain intersections of planes and solids E. Gain the ability to represent and understand three-dimensional objects
Study consultation (office hour)	Make appointment by e-mail. Sugimura: sugi@mech.kyushu-u.ac.jp; Otsuki: ayaka@mech.kyushu-u.ac.jp
Course Plan	The course is taught by means of lectures in the first part and the assignment for exercise in the second part every week. Tentative Weekly Schedule: 1. Introduction to drawing 2. Projections and views 3. Auxiliary views 4-6. Lines 7-9. Planes 10-12. Solids 13-14. Axonometric and other projections 15. Final Exam.
Textbooks	to be announced
Exams/Results Evaluation Method	Evaluation is made on the basis of the every week's exercises and the final examination to those who attended the lecture more than 10 days.
Others	
Link(s)	

module code	
Module Name	Introductory Biology
Subject Area	Fundamental Natural Science Subjects
Academic Year	2014
Taught semester	Spring Semester
day	Friday, 1:00 p.m.
required/electives	Elective
credit	2
name of lecturer	Layne Westover
School	School of Agriculture, School of Engineering
taught year	The 1st year
campus	Ito campus
pre-requisite	none
course overview	Course Overview: Students learn the basics of living organisms, including cells, genes, evolution and ecology.
overall objectives	Overall Objective: Students become familiar with the scientific method, how various organisms are related and similar or dissimilar, how biology is related to their lives, and see how evolution is the overarching theme of biology.
specific goals	Specific Goals: This course aims to achieve the following: A. Students become familiar with the terminology and vocabulary of biology, including correct spelling. B. Students learn the basic components of living organisms and how they grow and reproduce. C. Students learn the mechanisms of genetic reproduction and structure and function of DNA. D. Students learn the basic concepts of evolution and how plant and animal diversity comes about. E. Students learn the basics of how organisms interact and influence one another in the environment. F. Students learn some of the problems and challenges in maintaining biodiversity.
module outline	Course Plan: 1. Introduction, chemistry and molecules (chapters 1-3) 2. Cells (chapters 4-5) 3. Cellular respiration (chapter 6) 4. Photosynthesis (chapter 7) 5. Cellular reproduction and patterns of inheritance (chapters 8-9) 6. Structure and function of DNA (chapter 10) 7. Midterm Exam 8. Gene regulation (chapter 11) 9. DNA technology (chapter 12) 10. How populations evolve (chapter 13) 11. How biological diversity evolves (chapter 14) 7. 6/2. Chapter 4. Group topic. Essay topic + outline. 8. 6/9. Essay draft (Body Paragraphs). Presentation delivery practice. 9. 6/16. Essay draft (Introduction and Conclusion) Start working on the final project. Making up groups. Brainstorming. 10. 6/23. Final Essay due. Presentation practice 1A. (Individual) 12. Microbial life (chapter 15) 13. Plants and fungi (chapter 16) 14. Evolution of animals (chapter 17) 15. Ecology and population ecology, communities and ecosystems (chapters 18-20)
key words	
class procedure	
textbook	Textbook: Simon, Reece and Dickey (2010), Campbell Essential Biology, 4th Edition, Benjamin Cummings
references	
consultation	Office: room 301, Agriculture Building #1 Hakozaiki Campus Office Hours: by appointment Email: westover@agr.kyuchu-u.ac.jp Phone: 092-642-3048
exam/assessments	1. Practice quizzes will be given in-class periodically so students can assess their understanding and readiness for exams. 2. Mid-term examination (40%) 3. Final examination (40%)
others	Attendance and participation (20%) Exam questions will consist of a combination of question types, including T/F, multiple choice, short answer, and essay questions.

Module Code	
Course Subject Classification	Basic Information Processing Subject
Course Title	Basic of Information Processing
Intended Students	International Undergraduate Program (School of Engineering and School of Agriculture)
Taught Year	The 1st year
Course Year	2014
Course Term	Spring Semester
Taught Day	Wednesday, the 2nd period (10.30-12.00)
Subject Area	
Campus	Ito campus
Credit	
Course Tutor	Yoshihiro Okada, Professor, Innovation Center for Educational Resource(ICER) of Kyushu University Library
TA	Ryuya Akase, 1st Degree of Doctor Course, Graduate School of Information Science and Electrical Engineering
Pre-requisites	
Course Overview	This course explains Computer Literacy and C Language Programming by lectures and exercises. These are knowledge useful for intellectual activities, i.e., studies and researches, in the University
Study Objectives (general)	The purpose of this course is to make students possible to use computers alone for writing documents, making computer programs, and searching required information/data on the web.
Study Objectives (specific)	To understand the followings by exercises
	e.g. A. Knowledge for using computers, i.e., writing documents, making programs, and searching information/data.
	B. Information ethics and security.
	C. Basic operations of useful tools, i.e.,E-mail, WWW browser, Text Editor, etc.
	D. C programming Language and use of its dedicated tools.
	E. Algorithm to solve problems by computer programs.
Study consultation (office hour)	Office: 2F, Ito Library Building Office Hours: Wednesday, 13:00-14:30 Email: okada@inf.kyushu-u.ac.jp Phone: 092-802-2459
Course Plan	e.g. Tentative Weekly Schedule:
	01. (4/16) Introduction of the course 02. (4/23) E-mail 03. (4/30) WWW 04. (5/07) Information Ethics and Security 05. (5/14) Introduction of C Programming Language 06. (5/21) C Programming - Numerical calculations 07. (5/28) C Programming - Conditional branch 08. (6/04) C Programming - Iteration/Loop 09. (6/11) C Programming – Array 10. (6/18) C Programming – Strings 11. (6/25) C Programming - File input/output 12. (7/02) C Programming - Concrete applications I 13. (7/09) C Programming - Structure type 14. (7/16) C Programming – Recursion 15. (7/30) C Programming – Concrete applications II
Textbooks	Materials available on Blackboard Learn System (WebCT) Recommended book: C Programming Language (2nd Edition), B. W. Kernighan & D. Ritchie, Prentice Hall Software
Exams/Results Evaluation Method	1. Attendance and Participation: 20%
	2. Weekly Exercise Reports: 20%
	3. Three Homework Reports: 60%
Others	
Link(s)	Blackboard Learn System (WebCT), https://bb9.cc.kyushu-u.ac.jp/ Educational Information Service, http://www.cc.kyushu-u.ac.jp/ec/

Course Subject Name	Fundamentals of Mechanics and Exercises B																																				
Course Subject Classification	Fundamental Natural Science Subjects																																				
Course Year	2014																																				
Course Term	Spring Semester																																				
Taught Day	Friday, 1st period (08:40-10.10)																																				
Course Requirements	Required (but depending on the faculties and departments)																																				
Credit	1.5																																				
Course Tutor	Hemanta Hazarika																																				
Schools	School of Engineering and School of Agriculture																																				
Taught Year	1st year																																				
Campus	Ito campus																																				
Course Requirement (Pre-requisite)	Basic knowledge in Physics and Calculus including differential equations (Pre-requisite course: Fundamentals of Mechanics & Exercises A)																																				
Course Outline	<p>Course Overview:</p> <p>Mechanics is a branch of physical sciences that is concerned with the statics and dynamics of bodies subjected to the action of forces. It is the basis of many traditional fields of engineering, such as aerospace engineering, agriculture engineering, civil engineering, and mechanical engineering. In addition, mechanics often plays a vital role in such diverse fields as agriculture, medicine, biology, and bio-technology.</p>																																				
Study Objectives (general)	<p>Overall Objectives:</p> <p>Applying the principles of statics and dynamics to a wide range of engineering applications requires reasoning and practice. The primary objective of studying mechanics is to develop the capacity to predict the effects of force and motion while carrying out the creative design functions of engineering. The objectives of this course will be:</p> <p>(1) learning the principles of mechanics and their limitations within the context of applications, and (2) to develop students' ability to visualize physical configurations in terms of real materials and actual constraints.</p>																																				
Study Objectives (specific)	<ol style="list-style-type: none"> To develop the principle of work and energy, and apply it to solve problems that involve force, velocity and displacement of a particle or particle systems To introduce the concept of a conservative force and apply the theorem of conservation of energy to solve kinetic problems of a particle or particle systems To study the conservation of linear and angular momentum for a particle or particle systems To analyze the mechanics of impact and central force motion as a special application To study the kinematics and kinetics of rigid bodies in plane motion To study one-degree-of-freedom vibration of a rigid body using the equation of motion and energy methods 																																				
Course Plan	<p>This mechanics course will deal with the accelerated motion of a body. Following the principles of kinematics and kinetics learnt in Fundamentals of Mechanics & Exercises A, in this course, the dynamics of a particle, particle systems and rigid bodies will be studied with the following tentative schedule:</p> <table border="0"> <tr> <td>1. Kinetics of a Particle and Particle Systems: Work and Energy</td> <td>5. Planar Kinetics of Rigid Bodies: Force and Acceleration</td> </tr> <tr> <td> 1.1 Work and Kinetic Energy</td> <td> 5.1 Mass Moment of Inertia</td> </tr> <tr> <td> 1.2 Potential Energy</td> <td> 5.2 Planar Kinetic Equations of Motion</td> </tr> <tr> <td>2. Kinetics of a Particle and Particle Systems: Impulse and Momentum</td> <td> 5.3 Equations of Motion: Translation</td> </tr> <tr> <td> 2.1 Linear Impulse and Linear Momentum</td> <td> 5.4 Equations of Motion: Rotation about a Fixed Axis</td> </tr> <tr> <td> 2.2 Angular Impulse and Angular Momentum</td> <td>6. Planar Kinetics of Rigid Bodies: Work and Energy</td> </tr> <tr> <td> 2.3 Conservation of Linear Momentum for a System of Particles</td> <td> 6.1 Work of Forces and Couples</td> </tr> <tr> <td>3. Kinetics of a Particle and Particle Systems: Special Applications</td> <td> 6.2 Kinetic Energy</td> </tr> <tr> <td> 3.1 Impact</td> <td> 6.3 Principles of Work and Energy</td> </tr> <tr> <td> 3.2 Central-Force Motion</td> <td> 6.4 Conservation of Energy</td> </tr> <tr> <td>4. Planar Kinematics of Rigid Bodies</td> <td>7. Planar Kinetics of Rigid Bodies: Impulse and Momentum</td> </tr> <tr> <td> 4.1 Planar Rigid Body Motion</td> <td> 7.1 Linear and Angular Momentum</td> </tr> <tr> <td> 4.2 Absolute Motion Analysis</td> <td> 7.2 Principles of Impulse and Momentum</td> </tr> <tr> <td> 4.3 Relative Motion Analysis: Velocity</td> <td> 7.3 Conservation of Momentum</td> </tr> <tr> <td> 4.4 Instantaneous Center of Zero Velocity</td> <td>8. Vibration and Time Response</td> </tr> <tr> <td> 4.5 Relative Motion Analysis: Acceleration</td> <td> 8.1 Free Vibration of Particles</td> </tr> <tr> <td> 4.6 Motion Relative to Rotating Reference Frame</td> <td> 8.2 Forced Vibration of Particles</td> </tr> <tr> <td></td> <td> 8.3 Vibration of Rigid Bodies</td> </tr> </table>	1. Kinetics of a Particle and Particle Systems: Work and Energy	5. Planar Kinetics of Rigid Bodies: Force and Acceleration	1.1 Work and Kinetic Energy	5.1 Mass Moment of Inertia	1.2 Potential Energy	5.2 Planar Kinetic Equations of Motion	2. Kinetics of a Particle and Particle Systems: Impulse and Momentum	5.3 Equations of Motion: Translation	2.1 Linear Impulse and Linear Momentum	5.4 Equations of Motion: Rotation about a Fixed Axis	2.2 Angular Impulse and Angular Momentum	6. Planar Kinetics of Rigid Bodies: Work and Energy	2.3 Conservation of Linear Momentum for a System of Particles	6.1 Work of Forces and Couples	3. Kinetics of a Particle and Particle Systems: Special Applications	6.2 Kinetic Energy	3.1 Impact	6.3 Principles of Work and Energy	3.2 Central-Force Motion	6.4 Conservation of Energy	4. Planar Kinematics of Rigid Bodies	7. Planar Kinetics of Rigid Bodies: Impulse and Momentum	4.1 Planar Rigid Body Motion	7.1 Linear and Angular Momentum	4.2 Absolute Motion Analysis	7.2 Principles of Impulse and Momentum	4.3 Relative Motion Analysis: Velocity	7.3 Conservation of Momentum	4.4 Instantaneous Center of Zero Velocity	8. Vibration and Time Response	4.5 Relative Motion Analysis: Acceleration	8.1 Free Vibration of Particles	4.6 Motion Relative to Rotating Reference Frame	8.2 Forced Vibration of Particles		8.3 Vibration of Rigid Bodies
1. Kinetics of a Particle and Particle Systems: Work and Energy	5. Planar Kinetics of Rigid Bodies: Force and Acceleration																																				
1.1 Work and Kinetic Energy	5.1 Mass Moment of Inertia																																				
1.2 Potential Energy	5.2 Planar Kinetic Equations of Motion																																				
2. Kinetics of a Particle and Particle Systems: Impulse and Momentum	5.3 Equations of Motion: Translation																																				
2.1 Linear Impulse and Linear Momentum	5.4 Equations of Motion: Rotation about a Fixed Axis																																				
2.2 Angular Impulse and Angular Momentum	6. Planar Kinetics of Rigid Bodies: Work and Energy																																				
2.3 Conservation of Linear Momentum for a System of Particles	6.1 Work of Forces and Couples																																				
3. Kinetics of a Particle and Particle Systems: Special Applications	6.2 Kinetic Energy																																				
3.1 Impact	6.3 Principles of Work and Energy																																				
3.2 Central-Force Motion	6.4 Conservation of Energy																																				
4. Planar Kinematics of Rigid Bodies	7. Planar Kinetics of Rigid Bodies: Impulse and Momentum																																				
4.1 Planar Rigid Body Motion	7.1 Linear and Angular Momentum																																				
4.2 Absolute Motion Analysis	7.2 Principles of Impulse and Momentum																																				
4.3 Relative Motion Analysis: Velocity	7.3 Conservation of Momentum																																				
4.4 Instantaneous Center of Zero Velocity	8. Vibration and Time Response																																				
4.5 Relative Motion Analysis: Acceleration	8.1 Free Vibration of Particles																																				
4.6 Motion Relative to Rotating Reference Frame	8.2 Forced Vibration of Particles																																				
	8.3 Vibration of Rigid Bodies																																				
Course Approaches	<ol style="list-style-type: none"> This course will involve both lectures and tutorial exercises. Tutorial exercises will be conducted at regular intervals by adjusting to the progress of the lecture. Quiz type tests will be held during the lecture hours to check and understand students' ability to grasp the contents. Classes will be conducted using multimedia such as PowerPoint and other teaching materials, which will be supplied. 																																				
Textbook	Meriam, J. L. & Kraige, L. G., Engineering Mechanics Dynamics, Sixth Edition, John Wiley & Sons, USA.																																				
Reference Books	Shames, I. H., Engineering Mechanics Dynamics, Prentice Hall, USA.																																				
Study consultation (office hour)	Office: West Building No. 2, Room No. 1124 Office Hours: By appointment Email: hazarika@civil.kyushu-u.ac.jp, Phone: 3369																																				
Exams/Results Evaluation Method	1. Attendance : 10%, 2. Quiz & Midterm Test : 15% 3. Tutorial Exercises : 15%, 4. Examination : 60%																																				
Others	More than two thirds attendance is required to take the final examination.																																				