

# Syllabus Fall AY2022 for International Programs (Term G-I)

(Clicking a course title will jump to the syllabus)

## Monday Courses

- Japanese 1
- Introduction to Skills for Academic Success ※Fall Quarter 1
- Calculus 1
- Fundamentals of Earth Science I
- Academic Japanese 5 (Kanji 2200)
- Special Mathematics Lecture (Mathematics for machine learning) \*Optional subject

## Tuesday Courses

- Japanese 2
- Fundamentals of Physics I
- Health and Sports Science: Practicum (Exercise and Sports A (Badminton))
- Academic English Advanced 1
- Academic Japanese 1B
- Academic Japanese 3B

## Wednesday Courses

- Japanese Notation 1 (Kanji 200)
- First Year Seminar (5 courses)
- Academic Writing
- Fundamentals of Biology I
- Remedial Mathematics \*Optional subject
- Comparative Studies of Cultures
- Business Japanese 1
- Special Mathematics Lecture (Groups and their representations) \*Optional subject

## Thursday Courses

- Introduction to Contemporary Mathematics
- Academic Japanese 1A
- Academic Japanese 3A

## Friday Courses

- Health and Sports Science: Lecture
- Introduction to Life Sciences B
- Linear Algebra 1
- Go in Japanese Culture
- Fundamentals of Chemistry 1
- Business Japanese 3
- Studium Generale A

# Japanese 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	1a: 0061111 1b:0061112
<b>Course Category</b>	Language and Culture	<b>Credits</b>	4.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Mon & Thu / 1 (8:45~10:15)		
<b>Instructor</b>	1a: TOKUHIRO Yasuyo	1b: SEKIGUCHI Mio	
<p><b>●Goals of the Course 【Standardized across all programs】</b>          This course aims to provide a basic knowledge of Japanese which will enable students to function effectively in everyday life. Students will earn comprehensive Japanese, necessary to live both on and off campus. Each lesson will cover grammar, expressions, and vocabulary learned in the textbooks and practiced in short skits. Those students who register for this course should also register for the Japanese 2 and Japanese Notation 1 (Kanji 200) in the same semester. The Japanese level of this course is about N5 of JLPT.</p> <p><b>●Objectives of the Course</b>          Students will earn comprehensive Japanese, necessary to live both on and off campus.</p> <p><b>●Course Contents or Plan</b></p> <ul style="list-style-type: none"> <li>• Students will learn comprehensive Japanese, necessary to live both on and off campus.              Each lesson will cover new grammar, expressions and vocabulary.              A short test will be given each lesson.</li> <li>• Students are required to read textbooks (especially "Elementary Japanese 1 DAICHI Translation of the Main Text and Grammar Notes") as preparation for each lesson.</li> </ul> <p><b>●Course Prerequisites and Related Courses</b>          Students are required to take a placement test before the beginning of the Fall semester. The course level is decided upon in consultation with instructors. Those students who register for this course should also register for the Japanese 2 and Japanese Notation 1 (Kanji 200) in the same semester.</p> <p><b>●Course Evaluation Method and Criteria</b>          Attendance 30%, Class Participation 30%, Mid-term Examination and Final examination 40%</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>          Homework is required every day.</p> <p><b>●How to Respond to Questions</b>          Respond to questions by email or during class.</p> <p><b>●Notice for students</b></p> <ul style="list-style-type: none"> <li>• Students must maintain course attendance rates of 80% or higher and are required to take mid-term and final examination. Those who fail to meet these requirements will not earn credits. Three late arrivals or early departures of 15 minutes or more will be regarded as a one-lesson absence. In general, in the case of absence, make-up tests and examinations will not be possible (except in the case of extenuating circumstances).</li> <li>• Need to have a permission of the responsible instructor when students request course withdrawal during the semester.</li> <li>• Those who register for Japanese 1a should also register for Japanese 2a and Japanese Notation 1a in the same semester. Those who register for Japanese 1b should also register for Japanese 2b and Japanese Notation 1b in the same semester.</li> </ul>			
<b>Textbook</b>	1. 『日本語初級1 大地 メインテキスト』 スリーエーネットワーク 3,080 円 (税込) "Elementary Japanese 1 DAICHI Main Text" by 3A Corporation, ISBN : 9784883194766 2. 『日本語初級1 大地 文型説明と翻訳<英語版>』 スリーエーネットワーク 2,200 円 (税込) "Elementary Japanese 1 DAICHI Translation of the Main Text and Grammar Notes" by 3A Corporation, ISBN : 9784883194773 3. 『日本語初級1 大地 基礎問題集』 スリーエーネットワーク 990 円 (税込) "Elementary Japanese 1 DAICH Work Book" ISBN : 9784883194957		
<b>Reference Book</b>	Text ebooks: <a href="https://www.3anet.co.jp/np/en/list.html?g=31">https://www.3anet.co.jp/np/en/list.html?g=31</a>		
<b>Reference website for this Course</b>			

## Introduction to Skills for Academic Success ※Fall Quarter 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0061211
<b>Course Category</b>	Introduction to skills for academic success	<b>Credits</b>	1.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Mon / 2 (10:30~12:00)		
<b>Instructor</b>	VASSILEVA Maria		
<p>●<b>Goals of the Course 【Standardized across all programs】</b> To acquire and build one's core attitudes as an active learner, through inquiry of: What is a university; what is learning like in a university setting; what kind of skills are necessary for learning in a university setting.</p> <p>●<b>Objectives of the Course</b> Students will develop a practical knowledge on scientifically proven learning strategies and mindset frameworks that will allow them not only to make the best of their university years, but will prove useful for life.</p> <p>●<b>Course Contents or Plan</b> The course focuses on experiential learning and is structured around group discussions and student projects. Students will explore how university learning is different from high school, how psychology and neuroscience can help us understand the process of learning, and what techniques are effective to truly learn rather than simply memorize.</p> <p>●<b>Course Prerequisites and Related Courses</b> No prerequisites. Everyone is welcome.</p> <p>●<b>Course Evaluation Method and Criteria</b> (*Note Please do not forget to describe your course withdrawal policy.) Student progress in this course is evaluated through individual and group projects (40% of the course grade), weekly action/reflection assignments (40%) and weekly reading assignments (20%). Withdrawal (W) grade: Students are not required to make a formal withdrawal request to withdraw from the course. Students who do not fulfill grading requirements for a passing grade will receive a W grade.</p> <p>●<b>Study Load (Self-directed Learning Outside Course Hours)</b> This course expects reviewing assigned reading before each class, completing action/reflection assignment after class, and periodically preparing projects.</p> <p>●<b>How to Respond to Questions</b> For any questions, email the course instructor Prof. Vassileva at the provided email address</p> <p>●<b>Notice for students</b> The classes will be accessible as much as possible both in person and online. Exact format will be announced on NUCT.</p> <p>●<b>Message from the Instructor</b> Office hours can be requested any time over email</p> <p>●<b>Courses taught by Instructors with practical experience</b></p>			
<b>Textbook</b>	None. All materials will be provided by the instructor.		
<b>Reference Book</b>	None. All materials will be provided by the instructor.		
<b>Reference website for this Course</b>	Designated NUCT course site		

# Calculus 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0061311
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Mon / 3 (13:00~14:30)		
<b>Instructor</b>	RICHARD Serge		
<p>●<b>Goals of the Course</b> <b>【Standardized across all programs】</b>  The field of mathematics that describes and analyzes quantitative changes is analysis, and its central method is calculus. It is an essential research method in natural sciences, but in recent years it has also been widely applied to social sciences. The goal of this course is to understand the basics of one-variable functions (differentiation and integration) during the first half of this year-round course. In particular, it is important to understand the essence of limits, and to be able to handle freely elementary functions such as the logarithmic function and trigonometric functions.</p> <p>●<b>Objectives of the Course</b>  The aim of the first half of this one-year course is to provide a solid understanding of functions of one real variable. The students will become familiar with the various tools necessary for the analysis of such functions and for their applications.</p> <p>●<b>Course Contents or Plan</b>  1. Limits and continuity: Basic properties of limits of sequences and functions, continuous functions and their basic properties, maxima and minima, asymptotic properties of functions.  2. Differentiation: Basic properties of the derivative and its interpretation, mean value theorem, higher derivatives, Taylor series.  3. Integration: Riemann integral and its properties, improper integrals, the fundamental theorem of calculus.</p> <p>●<b>Course Prerequisites and Related Courses</b>  Some basic knowledge on calculus from high school is assumed, including differentiation and integration of polynomial functions. Students are encouraged to attend the related Math Tutorial Ia.</p> <p>●<b>Course Evaluation Method and Criteria</b>  The final grade will be determined by quizzes (30%), the midterm (30%) and a final exam (40%). The grading scale will be A+, A, B, C, C-, F. Students need to notify the course withdrawal to the instructor when they have no intention of finishing the course during the semester.</p> <p>●<b>Study Load (Self-directed Learning Outside Course Hours)</b>  Students are expected to read their notes, and to be familiar with the content of the previous lecture of Calculus I before attending the next lecture.</p> <p>●<b>How to Respond to Questions</b>  By email.</p> <p>●<b>Notice for students</b>  Check the website mentioned below for updated information. The lectures will be provided in a classroom and/or on Zoom depending on the situation.</p>			
<b>Textbook</b>	Free reference books and lecture notes will be available on the website of the course.		
<b>Reference Book</b>	Free reference books will be available on the website of the course.		
<b>Reference website</b>	<a href="http://www.math.nagoya-u.ac.jp/~richard/fall2022.html">http://www.math.nagoya-u.ac.jp/~richard/fall2022.html</a>		

# Fundamentals of Earth Science I

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0061411
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Mon / 4 (14:45~16:15)		
<b>Instructor</b>	HUMBLET Marc Andre		

## ●Goals of the Course 【Standardized across all programs】

The goal of this course is to understand the characteristics of our planet Earth and to provide an overview of Earth and planetary science. To this end, the origin of the Earth and of the Solar System, the minerals and rocks that make up the Earth, the processes shaping the landscape, and major events in the history of life will be explained to deepen the understanding of the Earth. Research methods used in Earth and planetary science will also be introduced.

## ●Objectives of the Course

The study of planet Earth embraces a wide range of topics, from the formation of rocks to the evolution of life, from continental drift to the study of earthquakes and volcanoes. In this course, fundamental concepts of earth science will be covered. Students will be introduced to plate tectonics, the fundamental theory underlying the geological processes which have shaped the environment in which we live and continue to modify the landscape, from the slow, progressive uplift of mountains to violent earthquakes and volcanic eruptions. Students will learn how the Earth recycles matter and how minerals and rocks form and are transformed; how the age of rocks and geological events can be determined, which is central to earth science; how the Earth's geography has changed and how life has evolved during Earth's 4.5-billion-year history. Besides providing a basic and up-to-date knowledge of essential concepts of earth science, the aim of this course is to stimulate the interest and curiosity of students for the study of planet Earth and provoke questions, comments, and discussions about issues related to earth science.

## ●Course Content or Plan

1. Earth Sciences: an introduction
2. The solar system
3. Plate tectonics
4. Minerals: rock's elementary building blocks
5. Rocks and rock cycle I: igneous rocks
6. Rocks and rock cycle II: sedimentary rocks
7. Rocks and rock cycle III: metamorphic rocks
8. The age of rocks
9. Earth history I: paleogeography
10. Earth history II: origin and evolution of life

## ●Course Prerequisites and Related Courses

There is no prerequisite for this course.

Related course: Fundamentals of Earth Science II

## ●Course Evaluation Method and Criteria

Online quizzes: 60%

Written essay: 30%

Oral presentation: 10%

Students who enrolled in 2020 will be graded using the six-step A+, A, B, C, C-, and F grade evaluation system (A+: 100-95%, A: 94-80%, B: 79-70%, C: 69-65%, C-: 64-60%, F: 59% or less).

Students who enrolled in 2019 or before will be graded following the five-step S-A-B-C-F grade evaluation system (S: 90-100%, A: 80-89%, B: 70-79%, C: 60-69%, F: 59-0%).

A student will be given an "Absent" grade if he or she submits a Course Withdrawal Request by the 15th of November. This deadline does not apply to students who drop the class part-way through for an exceptional reason (e.g., illness, accident). Also, NUPACE students should check the deadline set by the NUPACE program for course withdrawal.

## ●Study Load (Self-directed Learning Outside Course Hours)

Students should acquire a good understanding of the course content to be able to answer the questions of the quizzes.

Students are also required to write a review paper on a subject of their choice related to the course content, and therefore need to search for information related to this subject and to summarize that information in a clear, organized, and concise manner. Preparation time is also needed for the final short presentation that each student gives at the end of the semester about the subject of their review paper.

**•How to Respond to Questions**

Live lectures will be organized (in class or online or both), and students are strongly encouraged to ask questions during the lectures. Students can also contact me by e-mail or meet me in person in my office. NUCT will be used as another way of communication, to share files and send messages.

<b>Textbook</b>	There is no required textbook for this course. Please refer to the recommended reading below for an additional source of information.
<b>Reference Book</b>	Title: Understanding Earth Authors: John Grotzinger & Thomas H. Jordan Publisher: W. H. Freeman Issue year: 2014 (7th edition) ISBN: 978-1464138744
<b>Reference website for this Course</b>	

## Academic Japanese 5 (Kanji 2200)

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0061511
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Mon / 5 (16:30~18:00)		
<b>Instructor</b>	TOKUHIRO Yasuyo		
<p>●<b>Goals of the Course</b> 【Standardized across all programs】  This course aims to help students build an advanced knowledge of kanji so they can understand and use 2,200 kanji and kanji vocabulary. This course is for those who have learned about 800 kanji to increase the vocabulary of the kanji they have learned and to learn more new kanji.</p> <p>●<b>Objectives of the Course</b>  Participants learn about 2,200 kanji and kanji words listed by frequency. To increase vocabulary, every class students take a reading test and, optionally, a writing test (240-640 words with 80 kanji). It is followed by the instructor lecturing on topics related to kanji, including the rules of Japanese kanji pronunciation, the rules of kanji transitive/intransitive verbs and passive/causative forms.</p> <p>●<b>Course Contents or Plan</b>  (will not appear on the syllabus booklet but on our website “NUOCW名大の授業” )  <a href="#">アカデミック日本語（読解・文章表現）5／漢字2200   Courses (nagoya-u.jp)</a></p> <p>●<b>Course Prerequisites and Related Courses</b>  Participants should already know about 600-800 kanji.</p> <p>●<b>Course Evaluation Method and Criteria</b>  Attendance: 30%, Participation: 20%, Kanji tests: 50%  • Students who withdraw from this course must notify the instructor in charge in a written form(email, NUCT, etc.)  • If a student is absent from classes more than 4 times, the grade will be “Absent.”</p> <p>●<b>Study Load (Self-directed Learning Outside Course Hours)</b>  Students' homework is to learn 80 kanji and 240-640 words every week.</p> <p>●<b>How to Respond to Questions</b>  Respond to questions by email or during class.</p>			
<b>Textbook</b>	『日本語学習のための よく使う順 漢字2200』三省堂 2,500円+税 ISBN978-4-385-14074-2		
<b>Reference Book</b>	『日語学習常用漢字2100』四川大学出版社（簡体字中国語版）		
<b>Reference website for this Course</b>	後半の練習問題： <a href="https://dictionary.sanseido-publ.co.jp/dicts/ja/kanji2200/wb/yomikaki_Q-A/index.html">https://dictionary.sanseido-publ.co.jp/dicts/ja/kanji2200/wb/yomikaki_Q-A/index.html</a> <a href="#">アカデミック日本語（読解・文章表現）5／漢字2200   Courses (nagoya-u.jp)</a>		

# Special Mathematics Lecture (Mathematics for machine learning)

## \* Optional subject

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0061621
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Mon / 6 (18:15~19:45)		
<b>Instructor</b>	BACHMANN Henrik		
<p><b>●Goals of the Course</b> Machine learning became a popular and really broad field in recent years. Machine learning algorithms are used in a wide variety of applications, such as email filtering, computer vision, medicine, language translation, computer games, economic, etc. The goal of this course is to give a brief introduction into machine learning with a focus on the mathematics and algorithms used in machine learning. It is targeted at any (international and Japanese) student at Nagoya University who has interest in machine learning and who wants to see some practical application of mathematics taught in the basic math classes.</p> <p><b>●Objectives of the Course</b> In this course, we will consider various specific algorithms used in machine learning. For each algorithm we will study the mathematics used in this algorithm and try to implement the algorithm in python. The plan is to encourage group work among the students so that students with different background knowledge can help out each other. For the programming part we will use Google Colab. It can be seen as a bridge between the basic math classes and the engineering/computer science classes.</p> <p><b>●Course Contents or Plan</b> Introduction to programming in Python, overview of machine learning, minimax algorithm, linear &amp; logistic Regression, Generative Learning algorithms: Naive Bayes, Support vector machines, Reinforcement Learning: Q-Learning, Unsupervised learning: k-means clustering, Neural networks.</p> <p><b>●Course Prerequisites and Related Courses</b> Background knowledge in programming in Python (e.g. Data Science Exercise B) is helpful, but also students without programming background can use this class to start learning programming. The course will start with a basic introduction to Python. It is expected that the students have basic knowledge in Linear Algebra and Calculus (e.g. Linear Algebra I, Calculus I). Knowledge in Calculus II can be helpful at some points, but is not necessary to understand most parts of the course.</p> <p><b>●Course Evaluation Method and Criteria</b> The final grade will be based on written homework and programming tasks.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Depending on the background knowledge in programming some students might need to learn Python outside of the lecture. We will offer an additional Tutorial organized by TAs for this.</p> <p><b>●How to Respond to Questions</b> By email and/or by a discord server which will be used for the class.</p> <p><b>●Notice for students</b> You will get updated information on the course homepage: <a href="https://www.henrikbachmann.com/mml2022.html">https://www.henrikbachmann.com/mml2022.html</a></p> <p><b>●Message from the Instructor</b> Any student interested in this subject is welcome. Japanese students who want to attend a lecture in English are highly welcomed and there will be Japanese TAs to help if there are any language problems.</p>			
<b>Textbook</b>	A list of free online sources and books will be provided during the lectures. But we will also create lecture notes together during the course.		
<b>Reference Book</b>	None		
<b>Reference website for this Course</b>	<a href="https://www.henrikbachmann.com/mml2022.html">https://www.henrikbachmann.com/mml2022.html</a>		



# Japanese 2

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	2a: 0062112 2b:0062111
<b>Course Category</b>	Language and Culture	<b>Credits</b>	4.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Tue & Fri / 1 (8:45~10:15)		
<b>Instructor</b>	2a: SEKIGUCHI Mio	2b: TOKUHIRO Yasuyo	
<p><b>●Goals of the Course 【Standardized across all programs】</b> This course aims to provide a basic knowledge of Japanese which will enable students to function effectively in everyday life. It emphasizes oral practice utilizing the material students learned in Japanese 1. The textbooks are the same as Japanese 1. Those students who register for this course should also register for the Japanese 1 and Japanese Notation 1 (Kanji 200) in the same semester.</p> <p><b>●Objectives of the Course</b> Students will earn a basic knowledge of Japanese which will enable to function effectively in everyday life.</p> <p><b>●Course Contents or Plan</b></p> <ul style="list-style-type: none"> <li>• Each lesson will cover grammar, expressions and vocabulary learned in Japanese 1 and practiced in short skits. Reading and writing are also covered. A short test will be given each lesson.</li> <li>• Students are required to read textbooks (especially "Elementary Japanese 1 DAICHI Translation of the Main Text and Grammar Notes") as preparation for each lesson.</li> </ul> <p><b>●Course Prerequisites and Related Courses</b> Students are required to take a placement test before the beginning of the Fall semester. The course level is decided upon in consultation with instructors. Those students who register for this course should also register for the Japanese 1 and Japanese Notation 1 (Kanji 200) in the same semester.</p> <p><b>●Course Evaluation Method and Criteria</b> Attendance 30%, Class Participation 30%, Mid-term Examination and Final examination 40%</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Homework is required every day.</p> <p><b>●How to Respond to Questions</b> Respond to questions by email or during class.</p> <p><b>●Notice for students</b></p> <ul style="list-style-type: none"> <li>• Students must maintain course attendance rates of 80% or higher and are required to take mid-term and final examination. Those who fail to meet these requirements will not earn credits. Three late arrivals or early departures of 15 minutes or more will be regarded as a one-lesson absence. In general, in the case of absence, make-up tests and examinations will not be possible (except in the case of extenuating circumstances).</li> <li>• Need to have a permission of the responsible instructor when students request course withdrawal during the semester.</li> <li>• Those who register for Japanese 2a should also register for Japanese 1a and Japanese Notation 1a in the same semester. Those who register for Japanese 2b should also register for Japanese 1b and Japanese Notation 1b in the same semester.</li> </ul>			
<b>Textbook</b>	1. 『日本語初級1 大地 メインテキスト』スリーエーネットワーク 3,080円 (税込) "Elementary Japanese 1 DAICHI Main Text" by 3A Corporation, ISBN : 9784883194766 2. 『日本語初級1 大地 文型説明と翻訳<英語版>』スリーエーネットワーク 2,200円 (税込) "Elementary Japanese 1 DAICHI Translation of the Main Text and Grammar Notes" by 3A Corporation, ISBN : 9784883194773 3. 『日本語初級1 大地 基礎問題集』スリーエーネットワーク 990円 (税込) "Elementary Japanese 1 DAICH Work Book" by 3A Corporation, ISBN : 9784883194957		
<b>Reference Book</b>	Text ebooks: <a href="https://www.3anet.co.jp/np/en/list.html?g=31">https://www.3anet.co.jp/np/en/list.html?g=31</a>		
<b>Reference website for this Course</b>			

# Fundamentals of Physics I

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0062211
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Tue / 2 (10:30~12:00)		
<b>Instructor</b>	SHIGEMORI Masaki		
<p><b>●Goals of the Course 【Standardized across all programs】</b>  This is the first of three lecture courses (Fundamentals of Physics I–III) designed to cover the basic classical physics to provide a firm foundation for learning science and engineering, and is offered to undergraduate students in their first year. This course introduces the concepts and laws of classical mechanics. Specifically, the lecture covers various concepts such as Newton's second law, force, work, kinetic and potential energy, conservation of energy, center of mass and linear momentum. Basic physical and mathematical concepts such as velocity, acceleration, vectors, differentiation and integration are also reviewed.</p> <p><b>●Objectives of the Course</b>  <u>Kinematics</u>: Understand how to describe motion using position, velocity and acceleration vectors.  <u>Dynamics</u>: Understand Newton's laws and learn how to solve dynamical problems using free-body diagrams.  Understand basic notions such as work, energy, momentum, and conservation of energy and momentum.</p> <p><b>●Course Contents or Plan</b>  The topics include kinematics, vectors, force and motion, energy, work and momentum, and are based on the following chapters in the textbook:  Chapter 2: Motion Along a Straight Line  Chapter 3: Vectors  Chapter 4: Motion in Two and Three Dimensions  Chapter 5: Force and Motion I  Chapter 6: Force and Motion II  Chapter 7: Kinetic Energy and Work  Chapter 8: Potential Energy and Conservation of Energy  Chapter 9: Center of Mass and Linear Momentum  Some examples of problem solving will be discussed in lectures, but the companion course, Fundamental Physics Tutorial Ia, is designed to develop students' problem-solving skills.</p> <p><b>●Course Prerequisites and Related Courses</b>  Students without a good background in high school physics and basic calculus are advised to review those materials as soon as possible and would be expected to spend more time and effort for the course. This must be considered when deciding your course load. Students are expected to participate actively in class activities throughout the course.</p> <p><b>●Course Evaluation Method and Criteria</b>  Class attendance is required. Absentees must give a valid reason (e.g. doctor's certificate). Students who withdraw from this course must notify the instructor in charge in a written form (email, NUCT, etc.)  Class attendance: 5%, Assignments: 25%, Exams (midterm and final): 70%.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>  Online-quizzes and homework (a few hours)</p> <p><b>●How to Respond to Questions</b>  Online Q&amp;A and email</p> <p><b>●Notice for students</b>  Concurrent registration of Fundamental Physics Tutorial Ia is strongly advised because it is necessary for mastering the content of the lectures.</p>			
<b>Textbook</b>	<b>Fundamentals of Physics</b> Extended 11th Edition International Student Version with <b>WileyPLUS Set</b> (John Wiley & Sons, 2018 ISBN: 978-1119460138)		
<b>Reference Book</b>	Feynman Lectures On Physics (Vol.1) by Richard P. Feynman (Pearson PTR)		

## Health and Sports Science : Practicum (Exercise and Sports A(Badminton))

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0062411
<b>Course Category</b>	Health and Sports Science	<b>Credits</b>	1.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Tue / 4 (14:45~16:15)		
<b>Instructor</b>	KATAYAMA Keisho		
<p><b>●Goals of the Course [Standardized across all programs]</b> This course aims to achieve the necessary abilities to maintain and increase physical fitness and to develop the communication skills.</p> <p><b>●Objectives of the Course</b> The objectivities of this class are to emphasize the development of fundamental BADMINTON skills, knowledge of game rules, and tactics of play. The students play mixed doubles. The students are expected to deepen their understanding of this game and also to communicate well with a partner in class.</p> <p><b>●Course Contents or Plan</b> 1. An orientation session for incoming freshmen. 2. An orientation session for badminton class. 3. The rules of the doubles game. 3. Fundamental skill training. 4. Adapted skill training. 5. Team offensive and defensives tacti</p> <p><b>●Course Prerequisites and Related Courses</b> Comfortable SPORTSWEAR and INDOOR SPORTS SHOES must be worn. If the appropriate attire is not worn to this class, attendance will not be counted. The students who do not have enough clear eyesight, the use of glasses or contact lens is strongly recommended.</p> <p><b>●Course Evaluation Method and Criteria</b> (* Please do not forget to describe your course withdrawal policy.) Evaluated by the ATTENDANCE and active participation (70%), badminton skills and knowledge (20%), and communication skills (10%). The students missing more than FOUR classes for any reason will fail the course. Any students who are disruptive, disrespectful, absent from class many times, or not participating fully in the class will also fail the course or have their attendance/participation grade reduced. The course withdrawal system is available in this class. Students need to request a course withdrawal via email or NUCT message before the end of the 4th class (including the first orientation class). In principle, instructors may not give students a grade of “Withdrawal” without the notification of the course withdrawal. However, in the case of an avoidable reason, such as sickness, or no school attendance, the instructor may give a grade of “Withdrawal” based on their judgment.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> The self-directed learning is about understanding rules of the doubles game, fundamental skills, and team offensive and defensives tactics.</p> <p><b>●How to Respond to Questions</b> The students send questions to the Instructor by e-mail or message mail on NUCT</p> <p><b>●Notice for students</b> The students MUST attend the first orientation class and BRING their photo (3x4 cm) for incoming freshmen. The details of this course will be explained in the first session. It is desirable that students should preparation to learn about basic rules and skills required in playing of badminton. Please send a message through NUCT if you have a question or inquiry.</p> <p><b>●Message from the Instructor</b> We wish you have a lot of fun with us in the course.</p> <p><b>●Courses taught by Instructors with practical experience</b> This class is for beginners.</p>			
<b>Textbook</b>	The website about badminton will be introduced in class if necessary.		

<b>Reference Book</b>	If necessary, the book will be introduced in class.
<b>Reference website for this Course</b>	<a href="https://bwfbadminton.com/">https://bwfbadminton.com/</a>

## Academic English Advanced 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0062511
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Tue / 5 (16:30~18:00)		
<b>Instructor</b>	HAMLITSCH Nathan		
<p><b>●Goals of the Course 【Standardized across all programs】</b> This course is intended to develop and integrate students' abilities in reading, writing, listening, and speaking at an advanced level in academic English. The course aims to help students acquire skills for making effective presentations on various occasions such as academic conferences and business meetings.</p> <p><b>●Objectives of the Course</b> The central aim of this course is to improve students' presentation skills and to help students understand and create their own academic presentation based on a thorough understanding of 1) observations / problems 2) research questions / objectives, and 3) thesis statements / hypotheses. We will then use this basic framework to move to more advanced topics. Students will dissect and understand an actual peer-reviewed published academic work of their choosing as a basis for their presentation. Students will also learn how to write an abstract for their work. Students will make one presentation during the semester using the skills learned throughout the course. As necessary, most classes will contain a lecture dealing with specific aspects of presentation structure/skills. Class activities and materials will be oriented around pair and small group work.</p> <p><b>●Course Contents or Plan</b> Week 1 – Course introduction, orientation; What is research? Week 2 – The 3 most important elements of research; What is a thesis statement? Week 3 – 4 kinds of observations; 2 (+) kinds of research questions; 2 sequences of a research paper Week 4 – Review; Investigate a real research paper; Things to consider when choosing a research paper Week 5 – Student presentation: In focus Week 6 – Student project: 1. Observation, 2. Research Question, 3. Hypothesis Week 7 – Support for idea: How to support the thesis statement/hypothesis (Method, Results, Discussion) Week 8 – Wrapping up: Conclusions; outlines Week 9 – Feedback from presentation 1/ Using abstracts to organize your presentation; What is an abstract?; Building an abstract Week 10 – Checking an abstract; Highlighting aspects of the abstract Week 11 – From paper to presentation: Abstract to presentation; Hooks; Basic presentation flow: Necessary presentation slides Week 12 – Student Presentations Week 13 – Student Presentations Week 14 – Student Presentations Week 15 – Student Presentations</p> <p><b>●Course Prerequisites and Related Courses</b> None.</p> <p><b>●Course Evaluation Method and Criteria</b> Classwork/Participation (20%), Homework (20%), Presentation (60%). Please notify the instructor with a Course Withdrawal Request if you are dropping out of the course.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Each week there will be homework assigned by the instructor. The study load should average to be about 1-2 hours per week.</p> <p><b>●How to Respond to Questions</b> Please contact me through 1) email: <a href="mailto:hamlitsch@ilas.nagoya-u.ac.jp">hamlitsch@ilas.nagoya-u.ac.jp</a> or 2) send a message through NUCT.</p>			
<b>Textbook</b>	No required text. Instructor will distribute handouts.		
<b>Reference Book</b>	Any additional materials will be provided by the instructor.		
<b>Reference website for this Course</b>	None.		

# Academic Japanese 1B

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0062611
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Tue / 6 (18:15~19:45)		
<b>Instructor</b>	SEKIGUCHI Mio		
<p><b>●Goals of the Course 【Standardized across all programs】</b>  This course is intended to develop students' listening comprehension skills for longer audio segments and learn how to make simple academic presentations. The course designed to promote understanding of the way of basic presentations.</p> <p><b>●Objectives of the Course</b>  At the end of the lecture, students are to  (i) understand the way of basic presentations.  (ii) be able to give a presentation in pertinent vocabulary and expressions in the academic situation.</p> <p><b>●Course Contents or Plan</b></p> <ul style="list-style-type: none"> <li>• Prepare and perform four or five short speeches <ul style="list-style-type: none"> <li>-talking about yourself</li> <li>-expressing your opinion</li> <li>-introducing your favorite place</li> </ul> Other topics will be informed in the class.</li> <li>• Listening comprehension practice</li> </ul> <p><b>●Course Prerequisites and Related Courses</b>  Class materials are designed for lower-level intermediary students.  Students are required to have finished Basic Japanese Courses.</p> <p><b>●Course Evaluation Method and Criteria</b>  Attendance &amp; Class Participation: 50%, Assignment (Speech drafts &amp; Listening worksheets): 25%,  Final Examination (Speech &amp; Listening): 25%</p> <ul style="list-style-type: none"> <li>• Students who withdraw from this course must notify the instructor in charge in a written form(email, NUCT, etc.)</li> <li>• If a student is absent from classes more than 4 times, the grade will be “Absent.”</li> </ul> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>  Students must prepare for presentations outside of the class hours, and submit self-assessments after their presentation.</p> <p><b>●How to Respond to Questions</b>  Respond to questions by email or during class.</p>			
<b>Textbook</b>	Will be introduced in the class.		
<b>Reference Book</b>	『留学生のためのアカデミック・ジャパニーズ聴解 [中級]』スリーエーネットワーク		
<b>Reference website for this Course</b>			

## Academic Japanese 3B

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0062612
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Tue / 6 (18:15~19:45)		
<b>Instructor</b>	KATO Jun		

### ●Goals of the Course 【Standardized across all programs】

This course is intended to develop and integrate students' abilities in listening and speaking at an advanced level in academic Japanese. The course aims to help students acquire skills for making effective presentations in specialized fields.

### ●Objectives of the Course

At the end of the lecture, students are to

- (i) be able to give a presentation in an appropriate expression and style of the academic situation.
- (ii) be able to ask a question appropriately and give an answer definitely regarding question.

### ●Course Contents or Plan

The semester will cover the former half of the textbook as following:

Lesson 1: Listening practices

Lesson 2: Listening practices -part 1-1.

Lesson 3: Listening practices -part 1-2.

Lesson 4: Listening practices -part 2-1.

Lesson 5: Listening practices -part 2-2.

Lesson 6: Listening practices / making an outline of the presentation -part 1.

Lesson 7: Listening practices / making an outline of the presentation -part 2.

Lesson 8: Review.

Lesson 9: Listening practices / making an outline of the presentation -part 3.

Lesson 10: Listening practices / making an outline of the presentation -part 4.

Lesson 11: Listening practices / making an outline of the presentation -part 5.

Lesson 12: Student presentation -part 1.

Lesson 13: Student presentation -part 2.

Lesson 14: Review and discussion.

Lesson 15: Review, reflection, and course evaluation.

### ●Course Prerequisites and Related Courses

Class materials are designed for advanced students.

In this semester the former half of the designated textbook is mainly used. The latter half of it is used in Academic Japanese 4B in spring semester.

### ●Course Evaluation Method and Criteria

Students who need the course credits are required to meet the following conditions:

Mid-term quiz 20%    Presentation and self-assessment check 30%    Final exam 20%    Participation and Portfolio 30%  
TOTAL 100%

\*It will be graded following the 5-step(S/A/B/C/F) or the 6-step(A+/A/B/C/C-/F) grade evaluation system, depending on the year of enrollment.

\*Students do not need to submit a Course withdrawal Request for course withdrawal. For those who be absent from class more than 4 times, will receive an "W (absent) grade.

### ●Study Load (Self-directed Learning Outside Course Hours)

\*Students should download materials through NUCT and check some assignments on it before the class starts.

\*In each class, students are required to do a 3 sentences speech.

\*Students must prepare for presentations outside of the class hours, and submit self-assessments after their presentation.

### ●How to Respond to Questions

You can contact the instructor through Message function on NUCT or directly contact at the e-mail address.

**●Notice for students**

Students are required to prepare for the textbook by the second lesson. (If you cannot obtain the text books, please ask instructor through e-mail.)

\*The first lesson of the course will commence on October 4, 2022.

\*This course is conducted face-to-face.

\*The progress and contents of the lesson may change depending on the situation.

<b>Textbook</b>	『アカデミック・スキルを身につける 聴解・発表ワークブック』スリーエーネットワーク, "Academic Skill wo minitukeru Choukai / Happou Workbook" 3A Network, 2007.(ISBN: 978-4883194261)
<b>Reference Book</b>	To be informed in class.
<b>Reference website for this Course</b>	To be informed in class.



## Japanese Notation 1 (Kanji 200)

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	1a: 0063111 1b:0063112
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 1 (8:45~10:15)		
<b>Instructor</b>	1a: TOKUHIRO Yasuyo	1b: SEKIGUCHI Mio	
<p><b>●Goals of the Course 【Standardized across all programs】</b>          This course aims to provide a basic knowledge of Japanese which will enable students to function effectively in everyday life. The goal of this course is to be able to read and write hiragana, katakana and about 200 kanji. The goal is also to be able to write simple Japanese sentences using these characters. Those students who register for this course should also register for the Japanese 1 and Japanese 2 in the same semester.</p> <p><b>●Objectives of the Course</b>          Students will earn Japanese hiragana, katakana, and approximately 200 basic kanji and vocabulary.</p> <p><b>●Course Contents or Plan</b>          During the first week students will learn to read and write Hiragana and Katakana. From the following week, students will learn to read and write 15-16 kanji and kanji words each week.</p> <p><b>●Course Prerequisites and Related Courses</b>          Students are required to take a placement test before the beginning of the Fall semester. The course level is decided upon in consultation with instructors. Those students who register for this course should also register for the Japanese 1 and Japanese 2 in the same semester.</p> <p><b>●Course Evaluation Method and Criteria</b>          Attendance 30%, Class Participation 30%, Mid-term Examination and Final examination 40%</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>          Homework is required every week.</p> <p><b>●How to Respond to Questions</b>          Respond to questions by email or during class.</p> <p><b>●Notice for students</b></p> <ul style="list-style-type: none"> <li>• Students must maintain course attendance rates of 80% or higher and are required to take mid-term and final examination. Those who fail to meet these requirements will not earn credits. Three late arrivals or early departures of 15 minutes or more will be regarded as a one-lesson absence. In general, in the case of absence, make-up tests and examinations will not be possible (except in the case of extenuating circumstances).</li> <li>• Need to have a permission of the responsible instructor when students request course withdrawal during the semester.</li> <li>• Those who register for Japanese Notation 1a should also register for Japanese 1a and Japanese 2a in the same semester.</li> <li>• Those who register for Japanese Notation 1b should also register for Japanese 1b and Japanese 2b in the same semester.</li> </ul>			
<b>Textbook</b>	『Write Now! Kanji for Beginners』スリーエーネットワーク 2,090 円 (税込) "Write Now! Kanji for Beginners" by 3A Corporation, ISBN : 9784883194049		
<b>Reference Book</b>	1. 『日本語初級 1 大地 メインテキスト』スリーエーネットワーク 3,080 円 (税込) "Elementary Japanese 1 DAICHI Main Text" by 3A Corporation, ISBN : 9784883194766 2. 『日本語初級 1 大地 文型説明と翻訳<英語版>』スリーエーネットワーク 2,200 円 (税込) "Elementary Japanese 1 DAICHI Translation of the Main Text and Grammar Notes" by 3A Corporation, ISBN : 9784883194773		
<b>Reference website for this Course</b>			

## First Year Seminar

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063211
<b>Course Category</b>	First Year Seminar	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 2 (10:30~12:00)		
<b>Instructor</b>	OGAWA Shota		

### ●Theme of First Year Seminar

Writing about Movies: Korean Cinema as Method. In this course, we will approach Korean Cinema not so much as a stable object of study, but as a critical method to consider the dynamics of (post)colonialism, cultural cold war, and globalization. In other words, rather than training Korean culture experts, the course offers a practice ground for verbalizing how culture informs and is informed by various transnational forces such as imperialism, cold war, and globalization, but also cinephilia/fandom, melodrama, and diasporic longing.

### ●Goals of the Course 【Standardized across all programs】

This course is conducted in the form of a small seminar. It will provide multifaceted intellectual training with a special emphasis on reading (obtaining, analyzing, and evaluating sources), writing (summaries, papers), and speaking (discussion, presentation) which forms the most basic skills (“common basic”) needed for learning and studying at university. Our goal is to help the students to acquire a good understanding of the "process of knowledge exploration," the “pleasure in learning,” and independent learning ability. A wide variety of themes are prepared according to the research field of the instructors

### ●Objectives of the Course

By the end of the course, students will have acquired a set of criteria to evaluate arguments presented in various texts and the skills to engage with them in their own writing. Through weekly assignments of academic texts and bi-weekly assignments of films, students will acquire the technique to “close read” written texts and audio-visual works. In-class discussions, presentations, and short essays offer students a safe space to practice verbalizing complex ideas using concrete examples. In addition, the course offers an entry point to humanistic debates on the complex issues of postcolonial critique, cultural cold war, and globalization.

### ●Course Content or Plan

Module 0: Orientation

Module 1: Korean Cinema in a Global Frame  
(Short Paper 1)

Module 2: Korean Cinema in a Colonial Frame  
(Presentation 1)

Module 3: Korean Cinema in Cultural Cold War  
(Presentation 2)

Module 4: Korean Cinema in a Diasporic Frame  
(Abstract, Peer Review, Essay Exam)

### ●Course Prerequisites and Related Courses

None

### ●Course Evaluation Method and Criteria

Attendance and discussion participation - 15%

Mid-term Essay (Short Paper 1) - 15%

Presentation 1 10%

Presentation 2 10%

Abstract 10%

Peer Review 10%

Essay Exam 30%

Students need to notify the course withdrawal to a instructor. Without notification of the course withdrawal to a instructor, "F" will be given in the case of insufficient attendance (not counted legitimate and documented absences).

### ●Study Load (Self-directed Learning Outside Course Hours)

A typical weekly study load consists of three hours of reading (both from a composition handbook and a separate assigned text based on the discussion topic).

### ●How to Respond to Questions

NUCT messages (please be sure to have the message forwarded to instructor’s email account)

<b>Textbook</b>	Gocsik, Karen M., Dave Monahan, and Richard Barsam. 2019. <i>Writing about Movies</i> . New York: W. W. Norton & Company (ISBN: 978-0-393-66490-4)
<b>Reference Book</b>	All required texts will be provided in the form of pdf files and made accessible through NUCT
<b>Reference website for this Course</b>	

## First Year Seminar

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063212
<b>Course Category</b>	First Year Seminar	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 2 (10:30~12:00)		
<b>Instructor</b>	DOI Yasuhiro		

**●Theme of First Year Seminar**

In this First Year Seminar, students will study not only how to input academic information, but also how to output evidence of your research with a manner of a social science.

**●Goals of the Course 【Standardized across all programs】**

This course is conducted in the form of a small seminar. It will provide multifaceted intellectual training with a special emphasis on reading (obtaining, analyzing, and evaluating sources), writing (summaries, papers), and speaking (discussion, presentation) which forms the most basic skills (“common basic”) needed for learning and studying at university. Our goal is to help the students to acquire a good understanding of the "process of knowledge exploration," the “pleasure in learning,” and independent learning ability. A wide variety of themes are prepared according to the research field of the instructors.

**●Objectives of the Course**

Students study how to use data, academic methods and also how to create a good presentation.

To study social sciences, it is necessary to understand social problems and analyze them with appropriate academic tools.

In this First Year Seminar students have to pick up one particular social problem, conduct a short research and make a presentation in a manner of the social science.

**●Course Content or Plan**

No 1. Introduction

No 2.~7. Lectures of how to conduct a research and a related presentation

Students will learn key concepts of conducting research and skills for a presentation in academia.

No 8.~14. Presentatopms

Each student will give a 30 Min presentation of a topic which he/she chooses.

No 15. Concluding session

**●Course Prerequisites and Related Courses**

None

**●Course Evaluation Method and Criteria**

Attendance, participation, and Evaluation of each student’s presentation.

Students who decide to withdraw from the course should inform me by November 25th in a written form (email, NUCT, etc.)

**●Study Load(Self-directed Learning Outside Course Hours)**

Please find a topic which you would like to conduct a short research and read related papers and textbooks.

**●How to Respond to Questions**

Please send me an e-mail and make an appointment for discussion if it is needed.

**●Notice for Students**

Students should try to explain a mechanism and a main factor(s) of a selected problem clearly.

Any selected topic will be accepted to give a presentation, even the instructor is from the School of Economics and advices mainly from the view point of the economics and academic in general.

**●Message from the Instructor**

You will be provided opportunities to start organizing your own research in this seminar.

Please try to find a method how to convince people. With academic tools, you may have some good ways to let people understand your key concepts.

● **Courses taught by Instructors with practical experience**

None

<b>Textbook</b>	None
<b>Reference Book</b>	None
<b>Reference website for this Course</b>	

## First Year Seminar

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063213
<b>Course Category</b>	First Year Seminar	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 2 (10:30~12:00)		
<b>Instructor</b>	TAMA Florence Muriel		
<p>●<b>Theme of First Year Seminar</b> This course aims to discuss contemporary scientific issues.</p> <p>●<b>Goals of the Course [Standardized across all programs]</b> This course is conducted in the form of a small seminar. It will provide multifaceted intellectual training with a special emphasis on reading (obtaining, analyzing, and evaluating sources), writing (summaries, papers), and speaking (discussion, presentation) which forms the most basic skills (“common basic”) needed for learning and studying at university. Our goal is to help the students to acquire a good understanding of the "process of knowledge exploration," the “pleasure in learning,” and independent learning ability. A wide variety of themes are prepared according to the research field of the instructors.</p> <p>●<b>Objectives of the Course</b> The course is designed to develop students' capabilities to work in groups to exchange ideas as well as to develop presentation skills. Students will have to research information related to the weekly theme and give presentations.</p> <p>●<b>Course Content or Plan</b> The course will focus/discuss several aspects including scientific news, Nobel Prize, interdisciplinary research, research ethics, reviewing process of scientific publications, funding, and science.</p> <p>●<b>Course Prerequisites and Related Courses</b> None</p> <p>●<b>Course Evaluation Method and Criteria</b> Criteria for Absent and Fail grade: Students need to submit a Course Withdrawal Request Form when requesting course withdrawal. The “Absent” grade is reserved for students who withdraw at any point during the course. Students will be graded following the A+, A, B, C, C- and F grade evaluation system. The grade will be based on class participation and presentation.</p> <p>●<b>Study Load (Self-directed Learning Outside Course Hours)</b> Students should spend no more than 2 hours outside course hours.</p> <p>●<b>How to Respond to Questions</b> All communications will be handled via the NUCT class website.</p> <p>●<b>Message from the Instructor</b> For course implementation (Face to Face, Remote Class or Hybrid) – details will be provided via the NUCT class website</p>			
<b>Textbook</b>	None		
<b>Reference Book</b>	None		
<b>Reference website for this Course</b>	NUCT		

## First Year Seminar

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063214
<b>Course Category</b>	First Year Seminar	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 2 (10:30~12:00)		
<b>Instructor</b>	MATURANA Andres Daniel		
<p><b>●Theme of First Year Seminar</b> Senses enable the perception of the surrounding environment. Single cells or multicellular organisms developed various sensing systems, such as vision, audition, or magnetoception, to perceive and to react. In this course, we aim to learn about the cellular and molecular mechanisms underlying senses. We will study how researchers are using cellular and molecular tools used for sensing to develop biosensing devices.</p> <p><b>●Goals of the Course [Standardized across all programs]</b> This course is conducted in the form of a small seminar. It will provide multifaceted intellectual training with a special emphasis on reading (obtaining, analyzing, and evaluating sources), writing (summaries, papers), and speaking (discussion, presentation) which forms the most basic skills ("common basic") needed for learning and studying at university. Our goal is to help the students to acquire a good understanding of the "process of knowledge exploration," the "pleasure in learning," and independent learning ability. A wide variety of themes are prepared according to the research field of the instructors.</p> <p><b>●Objectives of the Course</b></p> <ol style="list-style-type: none"> <li>1. Learn about the biology of senses</li> <li>2. Learn to read and understand scientific articles</li> <li>3. Practice presentation skills</li> </ol> <p><b>●Course Content or Plan</b></p> <ol style="list-style-type: none"> <li>1. Introduction to sensing biology and guidance</li> <li>3. sensing in cells</li> <li>4. Sensing in animals from vision to electrosensing</li> <li>5. Sensing in plants</li> <li>6. Biosensor development</li> <li>7. Students presentations</li> </ol> <p><b>●Course Prerequisites and Related Courses</b> None</p> <p><b>●Course Evaluation Method and Criteria</b> Attendance, Active participation, Assignments, Oral presentation Withdraw: announce it to instructor.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Students need to read articles and publications. In addition, students will need to prepare short presentation.</p> <p><b>●How to Respond to Questions</b> Contact via email, NUCT, or individual appointment on demand.</p>			
<b>Textbook</b>	None		
<b>Reference Book</b>	None		
<b>Reference website for this Course</b>	None		

## First Year Seminar

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063215
<b>Course Category</b>	First Year Seminar	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 2 (10:30~12:00)		
<b>Instructor</b>	HUMBLET Marc Andre		

### ●Theme of First Year Seminar

The main theme of this seminar is “water and the environment”.

### ●Goals of the Course **【Standardized across all programs】**

This course is conducted in the form of a small seminar. It will provide multifaceted intellectual training with a special emphasis on reading (obtaining, analyzing, and evaluating sources), writing (summaries, papers), and speaking (discussion, presentation) which forms the most basic skills (“common basic”) needed for learning and studying at university. Our goal is to help the students to acquire a good understanding of the "process of knowledge exploration," the “pleasure in learning,” and independent learning ability. A wide variety of themes are prepared according to the research field of the instructors.

### ●Objectives of the Course

The seminar is divided into two parts. The first part provides tips on how to search for information and how to give an oral presentation. This is followed by a discussion centered on the definition of science and the difference between science and pseudoscience. A few lectures on coral reef ecosystems will serve as examples of how science can be communicated. The students will learn about the different kinds of reefs, the biology of corals and coral reefs, the factors controlling reef growth, the present-day threats on coral reefs, and the geological evolution of reefs. Students will also be able to examine hand-sized samples of coral reef limestones and observe thin sections under a microscope. During the second part of the seminar, the students will give two presentations each about any scientific subjects of their choice related to the marine or freshwater world. The fields covered can be as varied as underwater exploration technologies, marine biology, water in the solar system, hydroelectric energy... Each presentation is followed by a Q&A session. Class participation is strongly encouraged. The basic objectives of this seminar are (1) to teach students how to search for scientific information, (2) to encourage critical thinking, (3) to improve presentation skills, (4) to nurture scientific curiosity, and (5) to promote exchange of ideas about various scientific topics.

### ●Course Content or Plan

1. Introduction: tips on information search and oral presentation
2. What is science?
3. Science vs. pseudoscience
4. Coral reefs: diversity, past evolution and future trends
5. Lab session
6. Oral presentations by students

### ●Course Prerequisites and Related Courses

There is no prerequisite for this course.

Related courses: mostly (but not restricted to) biology- and geology-oriented courses

### ●Course Evaluation Method and Criteria

The grading is based on class participation (30%) and oral presentations (70%).

Students who enrolled in 2020 will be graded using the six-step A+, A, B, C, C-, and F grade evaluation system (A+: 100-95%, A: 94-80%, B: 79-70%, C: 69-65%, C-: 64-60%, F: 59 % or less).

Students who enrolled in 2019 or before will be graded following the five-step S-A-B-C-F grade evaluation system (S: 90-100%, A: 80-89%, B: 70-79%, C:60-69%, F: 59-0%).

A student will be given an “Absent” grade if he or she submits a Course Withdrawal Request by the 15th of November. This deadline does not apply to students who drop the class part-way through for an exceptional reason (e.g., illness, accident). Also, NUPACE students should check the deadline set by the NUPACE program for course withdrawal.



**●Study Load (Self-directed Learning Outside Course Hours)**

Outside course hours, students will need to prepare their oral presentations.

**●How to Respond to Questions**

Live lectures will be organized (in class or online or both), and students are strongly encouraged to ask questions during the lectures. Students can also contact me by e-mail or meet me in person in my office. NUCT will be used as another way of communication, to share files and send messages.

<b>Textbook</b>	None
<b>Reference Book</b>	None
<b>Reference website for this Course</b>	None

## Academic Writing

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063311
<b>Course Category</b>	Basic Courses in Humanities and Social Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Wed / 3 (13:00~14:30)		
<b>Instructor</b>	NISHINO Ryota		

### ●Goals of the Course 【Standardized across all programs】

The goal of this class is to introduce students to the craft of academic writing. Students will be able to apply the skills they learn in this class to writing essays in other courses in the fields of social sciences, arts, and humanities in particular. In addition, this course aims to equip students with the necessary writing skills to complete their undergraduate studies and prepare for more advanced levels of writing.

### ●Objectives of the Course

The course introduces students to crucial stages of writing: pre-writing, writing and revising. Each stage involves multiple skills. Upon successful completion, students can expect to apply the skills and experience gained in this course to a range of assignments including the undergraduate thesis.

### ●Course Contents or Plan

#### Pre-writing

Week 1. Orientation. Overview of the course. What is and is not academic writing?

Week 2. Decoding instruction words. Finding and evaluating sources.

Week 3. Managing sources: reading and taking notes.

#### Writing

Week 4. Academic integrity. Avoiding plagiarism. Quoting, summary, and paraphrasing

Week 5. Paragraphs: types and structures

Week 6. Paragraphs: continued

Week 7. Review test

Week 8. Planning your essay and thesis statement

Week 9. Writing introductions and conclusions

Week 10. Citation and bibliography

#### Revising

Week 11. Structure and content

Week 12. Sentences: Redundancy and wordiness

Week 13. Spelling, punctuation and vocabulary

Week 14. Peer review activity

Week 15. Final write-up

### ●Course Prerequisites and Related Courses

None.

### ●Course Evaluation Method and Criteria

Review test 20%

Assignment 1 — Annotated Bibliography 15%

Assignment 2 — Essay Plan 15%

Assignment 3 — Essay 1, 20%

Assignment 4 — Essay 2, 30%

Students need to notify the course withdrawal to the instructor when they have no intention of finishing the course during the semester.

Students who are absent more than four times will receive a W grade.

### ●Study Load (Self-directed Learning Outside Course Hours)

Where indicated, study assigned materials before classes. Materials include readings, videos, podcasts, and other resources.

Use time outside classes effectively to prepare for classes and your assignments.

Submit assignments on time.

Participate in class activities and make meaningful contributions to discussions with peers.

### ●How to Respond to Questions

Please write to me via NUCT.

### ●Message from the Instructor

Academic writing and what goes into it is a lifelong skill, a process, and an art. Be patient with yourself and others. Most of all, enjoy!

### ●Courses taught by Instructors with practical experience

None

<b>Textbooks</b>	<p>Greetham, Bryan. <i>How to Write Better Essays. 4<sup>th</sup> Edition</i>. London: Macmillan International Higher Education, 2018.</p> <p>Bailey, Stephen. <i>Academic Writing: A Handbook For International Students. 5<sup>th</sup> Ed</i>. London: Routledge, 2018.</p> <p>Both books are available for downloading from Nagoya University's library website.</p>
------------------	--

<b>Reference Books</b>	<p>Academic writing is a thriving field of publication. The list is neither complete nor definitive. Students may find the following suitable starting points. If you are unable to obtain the latest edition from the library, please consult previous / older editions.</p> <p>Taylor, Matthew A., and David E. Kluge. <a href="#"><i>Basic Steps to Academic Writing: From Paragraph to Essay</i></a>. Tokyo: Cengage Learning, 2012.</p> <p>Taylor, Matthew A., and David E. Kluge. <a href="#"><i>Basic Steps to Writing Research Papers</i></a>. Tokyo: Cengage Learning.</p> <p>Hacker, Diana. <a href="#"><i>A Writer's Reference</i></a>. Boston, MA, Bedford/St. Martins.</p> <p>Turabian, Kate L. <a href="#"><i>A Manual for Writers of Research Papers, Theses, and Dissertations: Chicago Style For Students and Researchers</i></a>. Chicago: University of Chicago Press, 2018.</p> <p>Oshima, Alice and Ann Hogue. <a href="#"><i>Writing Academic English, 5<sup>th</sup> ed.</i></a></p>
------------------------	---

	<p>Note: Hacker, Turabian and Oshima are available for online reading at Internet Archive (<a href="https://archive.org/">https://archive.org/</a>). Click the hyperlink above. Then you will get to the Internet Archive sites. However, you need to register to read. Free membership.</p>
<p><b>Reference websites for this Course</b></p>	<p>Many academic institutions provide tips and guidance for academic writing. Some are general advice; some are aimed at specific disciplines and citation styles. The list is neither complete nor definitive. Students may find the following suitable starting points.</p> <p>The University of Adelaide Writing Centre:  <a href="https://www.adelaide.edu.au/writingcentre/resources">https://www.adelaide.edu.au/writingcentre/resources</a></p> <p>Purdue Writing Lab  <a href="https://owl.purdue.edu/writinglab/the_writing_lab_at_purdue.html">https://owl.purdue.edu/writinglab/the_writing_lab_at_purdue.html</a></p> <p>The Harvard College Writing Center:  <a href="https://writingcenter.fas.harvard.edu/pages/resources">https://writingcenter.fas.harvard.edu/pages/resources</a></p> <p>The University of Sydney, Writing  <a href="https://www.sydney.edu.au/students/writing.html">https://www.sydney.edu.au/students/writing.html</a></p> <p>Academic Phrasebank, Manchester University (free edition)  <a href="https://www.phrasebank.manchester.ac.uk/">https://www.phrasebank.manchester.ac.uk/</a></p>

## Fundamentals of Biology I

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063315
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 3 (13:00~14:30)		
<b>Instructor</b>	CARTAGENA Joyce Abad		

### ●Goals of the Course 【Standardized across all programs】

Cells are not only the basic unit of living organisms, but also the smallest unit capable of self-renewal. In this course, we aim to deepen our understanding of the basic mechanisms of biological phenomena by studying the structure and functions of cells and their organelles. This course is designed to introduce the key concepts of biology and to provide the foundation for specialized courses. Furthermore, this course aims to encourage students to think like scientists and develop scientific reasoning and literacy skills.

### ●Objectives of the Course

This course will provide the basic knowledge in the different fields of Biology such as: Cell Biology, Genetics, Molecular Biology, Microbiology, Evolutionary Biology and Biodiversity, and Plant Biology. After taking this course, the students are expected to be able to easily proceed to the more advanced Biology courses in their curriculum.

### ●Course Contents or Plan

1. Cell Biology
  - Lecture 1: Cell Structure and Function
2. Genetics and Molecular Biology
  - Lecture 2: Cell Division and Sexual Reproduction
  - Lecture 3: Genetics (Mendel's Experiments and Heredity, Modern Understandings of Inheritance)
  - Lecture 4: DNA Structure and Function
  - Lecture 5: Gene Expression
  - Lecture 6: Biotechnology and Genomics
3. Evolution
  - Lecture 7: Evolutionary Processes
4. Biological Diversity
  - Lecture 8: Microbiology
  - Lecture 9: The Evolution of Plant and Fungal Diversity
  - Lecture 10: The Evolution of Vertebrate and Invertebrate Diversity
5. Plant Biology
  - Lecture 11: Plant Structure and Function

### ●Course Prerequisites and Related Courses

A background in basic Biology from high school is not absolutely required but is ideal.

### ●Course Evaluation Method and Criteria

Attendance and class participation 30%  
 Assignments (including group presentation) 30%  
 Examinations (midterm and final) 40%

### ●Study Load (Self-directed Learning Outside Course Hours)

Students are expected to read and understand one to three chapters (depending on topic) of the textbook every week, and come to class prepared for discussion. In order to assess students' understanding, assignments will be given after every lecture.

### ●How to Respond to Questions

Communication with the instructor and teaching assistant outside of class hours will be via NUCT or email.

### ●Notice for students

1. Course format
  - a. Lectures and discussion sessions (synchronous)  
 Lectures will be given either face-to-face or online (through Zoom) every Wednesday from 1:00-2:30 PM (JST), depending on the university guidelines regarding the pandemic situation in Nagoya. If majority of the students will not be able to attend face-to-face classes, online Zoom classes will be adopted. The detailed schedule will be announced on

the first day of class.

b. COIL class with NCSU (North Carolina State University)

COIL stands for Collaborative Online International Learning, an educational method that uses ICT to interact with overseas universities online. There are two methods: synchronous (using Zoom), and asynchronous (using Slack and Google Drive for file sharing and collaboration). COIL Zoom classes are tentatively set on October 27, 2022 (9:00 PM JST) and December 1, 2022 (10:00 PM JST). A group presentation will be the final requirement for this COIL class.

2. Course webpage

NUCT (Nagoya University Collaboration and Course Tools; <https://ct.nagoya-u.ac.jp/portal>) is an online system that will be used for this course. PowerPoint slides, recorded lectures, other learning materials (such as videos, websites, etc.) and home works will be accessible through this page.

3. Attendance

In case of emergency or absence from class, students should notify the instructor as soon as possible by email.

4. Make-up & repeat exams

Make-up exams may be given on condition that the student can provide acceptable reasons for his/her absence.

Students who fail to get a passing score at the end of the semester will be eligible for a repeat exam, given that the total score reaches at least 40%.

5. Academic honesty and original work

Cheating and copying (including plagiarism) will not be tolerated in this class. If caught cheating, students will receive necessary penalties, including getting an **F** in all registered courses for the semester. All submissions (assignments, exams and reports) will be checked using iThenticate.

6. Course withdrawal

Students who wish to withdraw from the course will have to inform the instructor by November 16, 2022.

7. Teaching assistant

Mr. Abriel Bulasag is a PhD student and will be joining the course as a TA. He can be contacted via NUCT messaging or by email ([asbulasag@up.edu.ph](mailto:asbulasag@up.edu.ph)).

●**Message from the Instructor**

Students are highly encouraged to regularly check NUCT for important announcements from the instructor. Do not hesitate to contact the instructor for any inquiries.

<b>Textbook</b>	Biology 2e (2020) OpenStax, Rice University Digital Version ISBN-13 978-1-947172-52-4 <a href="https://openstax.org/details/books/biology-2e">https://openstax.org/details/books/biology-2e</a> (Free online textbook)
<b>Reference Book</b>	Jane B. Reece, Martha R. Taylor, Eric J. Simon, Jean L. Dickey. 2019. Campbell Biology: Concepts & Connections, 9 <sup>th</sup> Ed. Pearson (Global Edition) *or older edition
<b>Reference website for this Course</b>	

## Comparative Studies of Cultures

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063411
<b>Course Category</b>	Basic Courses in Humanities and Social Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Wed / 4 (14:45~16:15)		
<b>Instructor</b>	MCGEE Dylan		

### ●Goals of the Course 【Standardized across all programs】

In today's world, conflicts and disputes based on differences in cultural backgrounds are becoming more and more serious. Living in such a world, we need to be willing to recognize the diversity of cultures. However, if we emphasize cultural diversity too much and “otherize” other cultures as if they were the stories of people in another world, we may lose our empathy as human beings, which may ultimately lead to a lack of understanding and indifference toward other cultures. The purpose of this course is to learn universal knowledge and perspectives on human beings and culture by focusing on not only the diversity of cultures but also the commonalities among them through the process of comparing them with each other.

### ●Objectives of the Course

As a liberal arts course in the humanities, this course is designed to introduce students to theories and methods currently used in cultural studies, while fostering critical inquiry and understanding of other cultures. Students in this class will develop basic academic skills like critical reading and analytic writing, while also enhancing communication skills through group discussion and presentation.

### ●Course Contents or Plan

This course is a comparative survey of Japanese and Chinese visual storytelling, from the tenth century to the present. We will learn about different forms of visual media over time, technologies of writing, cultures of reception, and the many roles that manuscript/print/digital media has played as an agent of social change. We will also learn various theories and methods for interpreting visual narrative and consider how readers (as consumers and prosumers) have shaped the dynamics of storytelling over time. All required readings for this course will be in English translation, with some additional materials available in Chinese and Japanese. Prior background in East Asian Studies and/or Japanese and Chinese is recommended but not required.

Course content will be organized into fourteen individual modules, each focusing on a particular topic or theme. Note that between now and the start of the semester, the following topics are subject to slight modification:

- Module 1: Course Overview
- Module 2: Picture Scrolls
- Module 3: Medieval/Early Modern Books
- Module 4: Medieval/Early Modern Books
- Module 5: Early Manga and Manhwa
- Module 6: Children's Literature
- Module 7: Early Animation
- Module 8: Interwar and Wartime Magazines
- Module 9: Comicbooks (Lianhuanhua and Manga) during the 1970s and 1980s
- Module 10: Dojinshi and Fan Fiction
- Module 11: 1980s-1990s Video Games
- Module 12: Media Mix and Transmedia Storytelling
- Module 13: Webtoons and Web Manhwa
- Module 14: Digital Media and Participatory Culture

### ●Course Prerequisites and Related Courses

There are no prerequisites to enroll in this course. All are welcome! Some previous background in East Asian humanities and/or proficiency in Japanese would be helpful.

### ●Course Evaluation Method and Criteria

Assessment in this course will be according to a contract system. At the start of the semester, each student will be given a choice of three different learning tracks, each with a different set of tasks and learning objectives that will culminate in a fixed grade. Upon successfully meeting all the objectives in their chosen track, students will earn the grade they signed up for. Students who choose the General Education Track, for example, will earn a B after completing ten of the fourteen lesson modules and writing a brief paper on an assigned topic. Students on the Research Track, in contrast, will earn an

A+/S after completing all fourteen lesson modules, contributing to online discussion meetings, conducting self-directed research for their final paper, and giving an presentation based on their research topic. Specific details about the assessment schedule for each track can be viewed on the online version of the syllabus, which will be accessible starting on Friday, September 30th (see below for details about how to access the course site before the start of the semester.

●**Study Load (Self-directed Learning Outside Course Hours)**

In addition to the ninety (90) minutes of time spent in each class meeting, students should expect to spend time outside of class each week reading and writing responses to weekly prompts. Your work load will depend on which learning track you have chosen to join. In general, students on the Discovery track (final grade of B) can expect an average of one hour or less per week, students on the Mastery track (final grade of A) around two hours per week, and students on the Research track (A+/S) around three hours per week. For more details, refer to the guide to learning tracks, which is posted on our CANVAS site.

●**How to Respond to Questions**

All students are encouraged to post questions and comments about the readings before class (through a textbox on our course site). I read these before class, and direct discussion towards your questions and interests. Students are also welcome to ask questions at any point during our discussion meetings.

●**Notice for students**

**IMPORTANT:** I will NOT be using NUCT to teach this class. Our class will be taught on CANVAS and our weekly meetings will be held in person. After you fill out the signup sheet linked below, I will provide you with the password for accessing the CANVAS site. It is your responsibility to write me and request access to CANVAS before the semester starts. If you are considering enrolling, please add your name and address to the following signup sheet page on Google Docs so that I can send you an invitation to the course site:

<https://forms.gle/naaQQ4Kx6Xyww1yJ7>

Note that I will be opening the course site on Friday, September 29th. That way, you can view the online version of the syllabus, peruse the schedule of course readings, and even get a head start working on some of the lesson modules before the semester starts.

This class will be taught in-person for the duration of the Fall 2022 semester. If you would like to enroll in the class, please make sure that you have no scheduling conflicts with other classes meeting on the same day and time. There will be no special accommodations for students who double-book their schedules. Also, please note that after the semester starts, I will only accept enrollment requests from students who have attended at least one of the first three class meetings. Students should not write mid-semester asking to join the class.

Because this class has been scheduled on a day and time that directly conflicts with my faculty meetings in the Graduate School of Humanities, there will be three or four dates on which I cannot hold class in person. I expect that these dates will be: October 19<sup>th</sup>, November 16<sup>th</sup>, December 14<sup>th</sup>, and January 18<sup>th</sup>. On these days, I will have a recorded lecture and other materials that students can access on demand. These will substitute for the discussion meetings scheduled on those days. I also plan to block off office hours during those weeks for students who would like to discuss the material in real time.

*Required statement about course withdrawal:* If you wish to withdraw from this class, please inform me in writing (by e-mail) as early in the semester as possible. If you write me before the ILAS deadlines for roster changes, your name will be removed from the roster. If you write me later than that, then your name will continue to appear on the roster, and you will be given a grade of absent (W or 欠).

<b>Textbook</b>	All course materials will be provided on the first day of class. There is no textbook to purchase.
<b>Reference Book</b>	A list of optional readings and reference materials will be made available on our course site.
<b>Reference website for this Course</b>	



## Remedial Mathematics \* Optional subject

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063415
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Wed / 4 (14:45~16:15)		
<b>Instructor</b>	RICHARD Serge		
<p>●<b>Goals of the Course [Standardized across all programs]</b>  The field of mathematics that describes and analyzes quantitative changes is analysis, and its central method is calculus. It is an essential research method in natural sciences, but in recent years it has also been widely applied to social sciences. This course is a companion course to Calculus I. Its goal is to provide additional support to students with little or no precalculus knowledge.</p> <p>●<b>Objectives of the Course</b>  Its objective is to provide enough material to students such that they can master the content of Calculus I and be fully equipped for more advanced courses.</p> <p>●<b>Course Contents or Plan</b>  The content of this course will depend on the initial level in mathematics of the students attending it. It will mainly consist in a review of high school mathematics and in an additional help for students attending the course Calculus I.</p> <p>●<b>Course Prerequisites and Related Courses</b>  No prerequisite.</p> <p>●<b>Course Evaluation Method and Criteria</b>  Your final grade will be determined by your active participation during the lectures. Students need to notify the course withdrawal to the instructor when they have no intention of finishing the course during the semester.</p> <p>●<b>Study Load (Self-directed Learning Outside Course Hours)</b>  No study load for this course.</p> <p>●<b>How to Respond to Questions</b>  By email.</p> <p>●<b>Notice for students</b>  Check the website mentioned below for updated information. The lectures will be provided in a classroom and/or on Zoom depending on the situation.</p>			
<b>Textbook</b>	Free textbook will be available on the website of the course.		
<b>Reference Book</b>	Free reference books will be available on the website of the course.		
<b>Reference website</b>	<a href="http://www.math.nagoya-u.ac.jp/~richard/fall2022.html">http://www.math.nagoya-u.ac.jp/~richard/fall2022.html</a>		

# Business Japanese 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063611
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Wed / 6 (18:15~19:45)		
<b>Instructor</b>	Kato Jun		

## ●Goals of the Course 【Standardized across all programs】

This course is intended to develop and integrate students' abilities of basic knowledge of Japanese and expressions such as honorific language considered essential knowledge for business people in Japan. This course aims to help students acquire the communication styles and expressions required in Japanese business settings through roleplay exercise based on various themes. This course also covers basic knowledge of job hunting in Japan.

## ●Objectives of the Course

At the end of the lecture, students are to

- (i) understand Japanese business culture.
- (ii) be able to use appropriate expressions which are used for building better relationship in working situation.
- (iii) understand the system of honorific language and be able to use honorifics properly.

## ●Course Contents or Plan

The semester will cover the former half of the textbook as following:

- Lesson 1: Introductions -part 1.
- Lesson 2: Introductions -part 2. / oral practice
- Lesson 3: Introductions -part 3. / role-play
- Lesson 4: Greetings -part 1. / oral practice
- Lesson 5: Greetings -part 2. / role-play
- Lesson 6: Permission -part 1. / oral practice
- Lesson 7: Permission -part 2. / role-play
- Lesson 8: Review and reflection.
- Lesson 9: Requests -part 1.
- Lesson 10: Requests -part 2.
- Lesson 11: Requests -part 3.
- Lesson 12: Presentation 1.
- Lesson 13: Presentation 2.
- Lesson 14: Presentation 3.
- Lesson 15: Review, reflection, and course evaluation

## ●Course Prerequisites and Related Courses

Class materials are designed for higher-level intermediate students.

In this semester the former half of the designated textbook is mainly used. The latter half of it is used in Business Japanese 2 in spring semester.

## ●Course Evaluation Method and Criteria

Students who need the course credits are required to meet the following conditions:

Mid-term quiz 20% Quizzes 10% Role-play and Presentation 20% Final exam 20%  
Participation 30% TOTAL 100%

\*It will be graded following the 5-step(S/A/B/C/F) or the 6-step(A+/A/B/C/C-/F) grade evaluation system, depending on the year of enrollment.

\*Students do not need to submit a Course withdrawal Request for course withdrawal. For those who be absent from class more than 4 times, will receive an "W (absent) grade.

## ●Study Load (Self-directed Learning Outside Course Hours)

\*Students should download materials through NUCT and check some assignments on it before the class starts.

\*In each class, students are required to answer and submit a quiz sheet.

\*Students must memorize some expressions and prepare for role-play presentations outside of the class hours.

## ●How to Respond to Questions

You can contact the instructor through Message function on NUCT or directly contact at the e-mail address.

<p><b>●Notice for students</b>          Students are required to prepare for the textbook by the second lesson. (If you cannot obtain the text books, please ask instructor through e-mail.)          *The first lesson of the course will commence on October 5, 2022.          *This course is conducted face-to-face.          *The progress and contents of the lesson may change depending on the situation.</p>	
<b>Textbook</b>	『新装版 ビジネスのための日本語』スリーエーネットワーク, "Shinsoban, business no tame no nihongo," 3A Corporation, 2006. (ISBN: 978-4883194018)
<b>Reference Book</b>	To be informed in class.
<b>Reference website for this Course</b>	To be informed in class.

## Special Mathematics Lecture (Groups and their representations) \* Optional subject

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0063621
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Wed / 6 (18:15~19:45)		
<b>Instructor</b>	RICHARD Serge		

### ●Goals of the Course

Group theory plays an important role in many fields, as for example in quantum mechanics or in particle physics. During this one semester course, we shall introduce the main concepts of groups, their representations, and present some classical groups. Lie groups and Lie algebras will also be discussed.

### ●Objectives of the Course

Get enough knowledge about groups for perceiving their importance in several theories and for recognizing them in numerous applications.

### ●Course Contents or Plan

This course should cover the following topics: 1) Groups, 2) Linear representations, 3) Lie groups, 4) Semi-simple theory.

### ●Course Prerequisites and Related Courses

Basic knowledge on calculus and linear algebra, as provided in Calculus I & II and in Linear algebra I & II. Motivated 1st year students can also attend without these prerequisites but after a discussion with the instructor.

### ●Course Evaluation Method and Criteria

The final grade will be based on the active participation during the lectures and on some written reports. Students will be encouraged to work on applications related to their major during the semester. Students need to notify the course withdrawal to the instructor when they have no intention of finishing the course during the semester.

### ●Study Load (Self-directed Learning Outside Course Hours)

Students are expected to read their notes, and to be familiar with the content of the previous lectures before each new lecture.

### ●How to Respond to Questions

By email.

### ●Notice for students

It is expected that the students will show a certain maturity in studying independently and in choosing some exercises and problems to solve. Study sessions will be organized on a weekly basis.

This course is an optional subject which does not count towards the number of credits required for graduation in any program at Nagoya University.

<b>Textbook</b>	Free textbooks will be provided during the lectures.
<b>Reference Book</b>	Free reference books will be provided during the lectures.
<b>Reference website</b>	<a href="http://www.math.nagoya-u.ac.jp/~richard/SMLfall2022.html">http://www.math.nagoya-u.ac.jp/~richard/SMLfall2022.html</a>

## Introduction to Contemporary Mathematics

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0064211
<b>Course Category</b>	Contemporary Liberal Arts (Natural Sciences)	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I / Thu / 2 (10:30~12:00)		
<b>Instructor</b>	OKAMOTO Yuko		

### ●Goals of the Course 【Standardized across all programs】

Mathematics originated in ancient Greece as one of the oldest disciplines, and has developed as a foundation and representative field of modern natural science to the present day. Along with the deepest and most beautiful world of number theory, the vast world of mathematical science connected to various fields spreads out there. The goal of this course is to introduce you to the diverse world of modern mathematics that lies beyond mathematics up to high school. In this course, we t r y to convey that defining mathematical concepts and creations of theories are extremely human activity. Also, mathematics is established through negotiations with various disciplines such as physics, and it provides new perspectives.

### ●Objectives of the Course

The objective of this course is to review mathematical concepts and techniques that are frequently used not only in natural sciences but also in economics and social sciences.

### ●Course Contents or Plan

1. Lines and their slopes
2. Sets, equations, absolute values
3. Functions and their graphs
4. Combinations of functions
5. Transformations of functions
6. Quadratic functions
7. Polynomial functions
8. Exponential functions
9. Logarithmic functions
10. Systems of equations and inequalities
11. Linear systems, vectors and matrices
12. Derivatives
13. Extremal value problems

### ●Course Prerequisites and Related Courses

No formal prerequisites. Basic skills in manipulating algebraic expressions, solving equations etc. will be helpful.

### ●Course Evaluation Method and Criteria

The examination consists of homework (20% of the total score) and a final exam (80%).

Course withdrawal: Any student who does not participate in the final exam will get the grade W. It is not necessary to hand in a course withdrawal request.

### ●Study Load (Self-directed Learning Outside Course Hours)

Participants are expected to attend the lectures, read the textbook, and solve homework assignments.

### ●How to Respond to Questions

The instructor will be available to answer questions in class or for individual appointments by e-mail.

<b>Textbook</b>	Rhonda, Huettenmueller: <i>Pre-calculus demystified</i> , second edition McGraw-Hill Education; 2 edition (2012) ISBN-13: 978-0071778497
<b>Reference Book</b>	<ul style="list-style-type: none"> <li>● Seymour Lipschutz: Schaum's outline of set theory and related topics, 2nd edition, McGraw-Hill, 1998;</li> <li>● Otto Bretscher: Linear Algebra with Applications, 4th edition, Pearson 2009;</li> <li>● Serge Lang: Short calculus, Springer-Verlag, New York, 2002.</li> </ul>
<b>Reference website for this Course</b>	

<b>Academic Japanese 1A</b>			
<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0064611
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Thu / 6 (18:15~19:45)		
<b>Instructor</b>	TOKUHIRO Yasuyo		
<p><b>●Goals of the Course 【Standardized across all programs】</b>            In this course, students will acquire fundamental reading and composition skills to read and write simple reports in specialized fields as well as analytical texts such as dissertations. The course aims to develop skills to comprehend and compose texts ranging in length from short to long, while at the same time reviewing beginner-level vocabulary, grammar, and Japanese characters. The Japanese level of this course is about N3 of JLPT.</p> <p><b>●Objectives of the Course</b>            The course aims to develop skills to comprehend and compose texts ranging in length from short to long, while at the same time reviewing beginner-level vocabulary, grammar, and Japanese characters.</p> <p><b>●Course Contents or Plan</b>            1. Reading comprehension 1, Introduction            2. Writing essay 1, Introduction            3. Reading comprehension 2, Submit Essay 1-1            4. Writing essay 2, Vocabulary quiz 1            5. Reading comprehension 3, Submit Essay 1-2, 2-1            6. Writing essay 3, Vocabulary quiz 2            7. Reading comprehension 4, Submit Essay 2-2, 3-1            8. Writing essay 4, Vocabulary quiz 3            9. Reading comprehension 5, Submit Essay 3-2, 4-1            10. Writing essay 5, Vocabulary quiz 4            11. Reading comprehension 6, Submit Essay 4-2, 5-1            12. Writing essay 6, Vocabulary quiz 5            13. Reading comprehension 7, Submit Essay 5-2            14. Writing essay 7, Vocabulary quiz 6            15. Review and Summary, Exam</p> <p><b>●Course Prerequisites and Related Courses</b>            Class materials are designed for lower-level intermediary students.</p> <p><b>●Course Evaluation Method and Criteria</b>            Attendance 20%, Participation 20%, Compositions 40%, Exam 20%</p> <ul style="list-style-type: none"> <li>• Students who withdraw from this course must notify the instructor in charge in a written form(email, NUCT, etc.)</li> <li>• If a student is absent from classes more than 4 times, the grade will be "Absent."</li> </ul> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>            Students' homework is to write essays and learn words.</p> <p><b>●How to Respond to Questions</b>            Respond to questions by email or during class.</p>			
<b>Textbook</b>	『大学・大学院 留学生の日本語①読解編』アルク、1,760 円 "Daigaku-Daigakuin Ryugakusei no Nihongo (1) Dokkaihen," Alc KK, ISBN: 9784757426313 『大学・大学院 留学生の日本語②作文編』アルク、1,760 円 "Daigaku-Daigakuin Ryugakusei no Nihongo (2) Sakubunhen," Alc KK, ISBN: 9784757426320		
<b>Reference Book</b>	テキスト音声 : <a href="https://www.alc.co.jp/dl/7015017/">https://www.alc.co.jp/dl/7015017/</a>		
<b>Reference website for this Course</b>			

## Academic Japanese 3A

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0064612
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Thu / 6 (18:15~19:45)		
<b>Instructor</b>	KATO Jun		

### ●Goals of the Course 【Standardized across all programs】

This course designed to develop students' fundamental skills to read reports in specialized fields and academic articles as well as write reports or dissertations related to their own research focus. The course aims to help students acquire skill for writing a logical short essay of around 1,000 characters through practicing reading academic articles and writing a good paragraph.

### ●Objectives of the Course

At the end of the lecture, students are to

- (i) be able to write a brief summary of articles.
- (ii) understand how to write a good paragraph.
- (iii) to be able to write a logical short essay of around 1,000 characters.

### ●Course Contents or Plan

The semester will cover the former half of the textbook as following:

- Lesson 1: Reading exercises -part 1-1.
- Lesson 2: Reading exercises -part 1-2. / Writing exercises -part 1.
- Lesson 3: Reading exercises -part 2. / Writing exercises -part 2.
- Lesson 4: Reading exercises -part 3-1. / Writing exercises -part 3.
- Lesson 5: Reading exercises -part 3-2. / Writing exercises -part 4.
- Lesson 6: Reading exercises -part 4. / Writing exercises -part 5.
- Lesson 7: Review.
- Lesson 8: Reading exercises -part 5-1. / Writing exercises -part 6.
- Lesson 9: Reading exercises -part 5-2. / Writing exercises -part 7.
- Lesson 10: Reading exercises -part 6. / Writing exercises -part 8.
- Lesson 11: Reading exercises -part 7-1. / Writing exercises -part 9.
- Lesson 12: Reading exercises -part 7-2 / Writing exercises -part 10.
- Lesson 13: Reading exercises -part 8. / Writing exercises -part 11.
- Lesson 14: writing a paragraph
- Lesson 15: Review, reflection, and course evaluation.

### ●Course Prerequisites and Related Courses

Class materials are designed for advanced students.

In this semester the former half of the designated textbook is mainly used. The latter half of it is used in Academic Japanese 4A in spring semester.

### ●Course Evaluation Method and Criteria

Students who need the course credits are required to meet the following conditions:

Mid-term quiz 20%, Thesis 30%, Final exam 20%, Assignments 30%: TOTAL 100%

\*It will be graded following the 5-step(S/A/B/C/F) or the 6-step(A+/A/B/C/C-/F) grade evaluation system, depending on the year of enrollment.

\*Students do not need to submit a Course withdrawal Request for course withdrawal. For those who be absent from class more than 4 times, will receive an "W (absent) grade.

### ●Study Load (Self-directed Learning Outside Course Hours)

\*It is strongly recommended to read textbook and check vocabulary and expressions before each lesson.

\*Students should download materials through NUCT and check some assignments on it before the class starts.

\*Students must submit some assignments through NUCT.

### ●How to Respond to Questions

You can contact the instructor through Message function on NUCT or directly contact at the e-mail address.

<p><b>●Notice for students</b>  Students are required to prepare for the textbook by the second lesson. (If you cannot obtain the text books, please ask instructor through e-mail.)  The first lesson of the course will commence on October 6, 2022.  *This course is conducted face-to-face.  *The progress and contents of the lesson may change depending on the situation.</p>	
<b>Textbook</b>	『改訂版 大学・大学院 留学生の日本語③論文読解編』アルク, "Daigaku-Daigakuin Ryugakusei no Nihongo (3) Ronbundokkaihen (revised edition)", ALCKK. (ISBN: 978-4757426337) 『改訂版 大学・大学院 留学生の日本語④論文作成編』アルク, "Daigaku-Daigakuin Ryugakusei no Nihongo (4) Ronbunsakuseihen (revised edition)", ALC KK. (ISBN: 978-4757426344)
<b>Reference Book</b>	To be informed in class.
<b>Reference website for this Course</b>	To be informed in class.



<b>Health and Sports Science: Lecture</b>			
<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065211
<b>Course Category</b>	Health and Sports Science	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Fri / 2 (10:30~12:00)		
<b>Instructor</b>	©KOIKE Teruhiko, SAKAI Takashi		
<p><b>●Goals of the Course 【Standardized across all programs】</b> This course aims to obtain and understand evidenced-based knowledge about health, exercise, and sports sciences necessary for personal health management.</p> <p><b>●Objectives of the Course</b></p> <ol style="list-style-type: none"> <li>1. Students can gain scientific knowledge about drugs, diet, and exercise.</li> <li>2. Students can gain basic knowledge about epidemiology and statistics, and increase the ability to interpret the clinical studies</li> <li>3. Students will experience the effect of behavior change.</li> <li>4. Students can learn the importance of mental health.</li> <li>5. Students can learn how to prevent infectious diseases.</li> </ol> <p><b>●Course Contents or Plan</b></p> <p>Session 1 Lifestyle (Koike)</p> <ol style="list-style-type: none"> <li>① Alcohol and Smoking</li> <li>② Diet</li> <li>③ Exercise</li> <li>④ Obesity and diabetes</li> </ol> <p>Session 2 Infectious diseases (Koike)</p> <ol style="list-style-type: none"> <li>① How to prevent infection?</li> <li>② SARS-CoV-2 Covid-19</li> <li>③ HIV/AIDS</li> </ol> <p>Session 3 Brain and Mental Disorder (Sakai)</p> <ol style="list-style-type: none"> <li>① Sleep</li> <li>② Depression</li> <li>③ Psychoanalysis</li> </ol> <p><b>●Course Prerequisites and Related Courses</b> None</p> <p><b>●Course Evaluation Method and Criteria</b> Final exam (25%), Assignment (25%), Quiz (50%) Standard method for converting marks-out-of-100 to letter <u>won't be used</u>. Students who are absent from the final examination will get an "Absent" grade. Students do not need to notify the instructor of the course withdrawal.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Students need to plan, do, and report a project on lifestyle change.</p> <p><b>●How to Respond to Questions</b> Message function of NUCT</p>			
<b>Textbook</b>	None (Reading materials will be available from the Website.)		
<b>Reference Book</b>	None		
<b>Reference website for this Course</b>	Nagoya University Collaboration and Course Tools (NUCT)		

## Introduction to Life Sciences B

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065311
<b>Course Category</b>	Contemporary Liberal Arts (Natural Sciences)	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Fri / 3 (13:00~14:30)		
<b>Instructor</b>	VASSILEVA Maria		
<p><b>●Goals of the Course [Standardized across all programs]</b> The Earth is full of living organisms in a variety of environments, and humans coexist there. In addition, most of the foods we consume, including agricultural products, are derived from the living organisms. From microorganisms to animals and plants, and from molecular-level events in cells to global environmental events in forests and oceans, the field of life science has expanded greatly. Furthermore, life science is the basis for many important issues in our daily lives, such as regenerative medicine, genome editing, functional foods, environmental purification, and bioenergy. In this lecture, students will learn the basic knowledge of modern life science, and deepen their understanding of what kind of research is currently being conducted at universities and companies.</p> <p><b>●Objectives of the Course</b> In this course students will learn about the genetic makeover of life, from both micro- and macro- perspective. Students will explore what inheritance is, what is its molecular basis and how it impacts living organisms. We will also look at how genetics shapes evolution of living forms on Earth, and their interaction with the changing environment. This knowledge will allow students to understand and critically evaluate popular information related to biological themes, from biotechnology to environmental issues.</p> <p><b>●Course Contents or Plan</b> Introduction to inheritance Molecular basis of genetics The process of evolution Ecology and biodiversity</p> <p><b>●Course Prerequisites and Related Courses</b> No prerequisites, everyone is welcome. Even students who have not studied biology in high school, or who do not like the subject, are welcome to join.</p> <p><b>●Course Evaluation Method and Criteria</b> Students' progress is evaluated through quizzes (50%) and projects (50%). Withdrawal (W) grade: Students are not required to make a formal withdrawal request to withdraw from the course. Students who do not fulfill grading requirements for a passing grade will receive a W grade.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b> Students will have to review the lecture material after class and complete weekly quizzes, as well as work on individual or team projects.</p> <p><b>●How to Respond to Questions</b> For any questions, email the course instructor Prof. Vassileva at the provided email address</p> <p><b>●Notice for students</b> The classes will be accessible as much as possible both in person and online. Exact format will be announced on NUCT.</p> <p><b>●Message from the Instructor</b> Office hours can be requested any time over email</p>			
<b>Textbook</b>	None. All materials will be provided by the instructor.		
<b>Reference Book</b>	None. All materials will be provided by the instructor.		
<b>Reference website for this Course</b>	Designated NUCT course site		

# Linear Algebra 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065315
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Fri / 3 (13:00~14:30)		
<b>Instructor</b>	BACHMANN Henrik		
<p><b>●Goals of the Course 【Standardized across all programs】</b>  "Linearity" is the most basic concept of quantitative treatment in modern science and is used in all fields. Linear algebra is a method of mathematically dealing with linearity. The goal of this course is to familiarize yourself with the mathematical treatment of matrices and vectors and to understand various concepts in the first half of the year-round lecture. In particular, we emphasize geometric understanding by coordinate geometry, familiarity with solving simultaneous linear equations, and understanding of the concept of orthogonality.</p> <p><b>●Objectives of the Course</b>  The first half of the course will deal with solving linear systems in a systematic way. We will view linear system from several different points of views and see how this will lead to a lot of powerful tools for real life applications.</p> <p><b>●Course Content or Plan</b>  Linear systems, Gaussian elimination, matrices, vectors, linear maps, matrix multiplication, the inverse of a linear map, subspaces of <math>\mathbb{R}^n</math>, image and kernel, linear independence, bases, dimension, coordinates, orthogonal bases, the Gram-Schmidt algorithm, QR factorization, orthogonal complement, orthogonal maps, least square approximations.</p> <p><b>●Course Prerequisites and Related Courses</b>  No formal prerequisites. Some ability to manipulate systems of linear equations and understanding of elementary geometry will be useful for the understanding of the course material. It is <i>strongly</i> recommended to also follow the course Mathematics Tutorial I b. Highly motivated students can also attend the lecture "Mathematics for machine learning", where some concepts of Linear Algebra 1 are applied.</p> <p><b>●Course Evaluation Method and Criteria</b>  There will be two main, written exams: midterm and final. Additionally, there will be homework assignments and quizzes. The grading scale will be A+, A, B, C, C-, F. Students need to notify the course withdrawal to the instructor when they have no intention of finishing the course during the semester.</p> <p><b>●Study Load (Self-directed Learning Outside Course Hours)</b>  Students are expected to review the previous lecture of Linear Algebra I before attending the next lecture.</p> <p><b>●How to Respond to Questions</b>  Email or social media.</p> <p><b>●Notice for Student</b>  Everything you need to know will be on the regularly updated homepage below. Please check this homepage regularly for updates.</p>			
<b>Textbook</b>	None		
<b>Reference Book</b>	Otto Bretscher: <i>Linear Algebra with Applications</i> , fourth edition, Pearson 2009. ISBN: 978-0-13-600926-9		
<b>Reference website for this Course</b>	<a href="https://www.henrikbachmann.com/la1_2022.html">https://www.henrikbachmann.com/la1_2022.html</a>		

## Fundamentals of Chemistry 1

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065418
<b>Course Category</b>	Basic Courses in Natural Sciences	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	G-I (1st year, Fall Semester) / Fri / 4 (14:45~16:15)		
<b>Instructor</b>	PHUNG Quan manh		

### ●Goals of the Course 【Standardized across all programs】

Chemistry is a discipline that deals with substances and their changes, and is the basis of a wide range of science fields. Its targets range from atoms to molecules, macromolecules, solids, liquids, and substances existing in living organisms and the global environment and forming the universe. We are surrounded by various substances, so it is crucial to understand them and their behavior. Fundamentals of Chemistry I and II are designed to be taken consecutively throughout the year. The courses deal with the basic units of substances such as atoms and molecules, as well as the structures and functions of various substances. It is planned to systematically learn the basics and attractiveness of chemistry, such as the exchange of energy, the progress of chemical reactions, and the relationship between life phenomena and substances.

### ●Objectives of the Course

Students will gain an understanding of:

- the fundamentals of chemical reactions,
- chemical and physical properties of atoms and molecules in different phases,
- the electronic structure of atoms and molecules and its impact on chemical properties, basic laws of thermodynamics and their applications in chemical reactions.

### ●Course Contents or Plan

- 1 Chemical Tools: Experimentation and Measurement (Ch. 1)
- 2 Atoms, Molecules, and Ions (Ch. 2)
- 3 Mass Relationships in Chemical Reactions (Ch. 3)
- 4 Reactions in Aqueous Solutions (Ch. 4)
- 5 Periodicity and the Electronic Structure of Atoms (Ch. 5)
- 6 Ionic Compounds: Periodic Trends and Bonding Theory (Ch. 6)
- 7 Review and Midterm evaluation (Chs. 1 – 6)**
- 8 Covalent Bonding and Electron-Dot Structure (Ch. 7)
- 9 Covalent Compounds: Bonding Theories and Molecular Structure (Ch. 8)
- 10 Thermochemistry: Chemical Energy (Ch. 9)
- 11 Gases: Their Properties and Behavior (Ch. 10)
- 12 Liquids and Phase Changes (Ch. 11)
- 13 Solids and Solid-State Materials (Ch. 12)
- 14 Solutions and Their Properties (Ch. 13)
- 15 Review and Final evaluation (Chs. 1 – 13)**

### ●Course Prerequisites and Related Courses

None

### ●Course Evaluation Method and Criteria

Students will be evaluated based on one midterm exam (25% weight), one final exam (comprehensive, 45% weight), and homework (30% weight). Multiple choice homework will be given at the end of each class. Homework must be submitted before the next class starts. Both midterm and final exams will be multiple choice.

Grade evaluation will be according to the the GPA System at Nagoya University: "A+": 100-95%, "A": 95-80%, "B": 70-80%, "C": 65-70%, "C-": 60-65%, "F": 60-0%.

**Course Withdrawal:** Students need to request a course withdrawal when they have no intention of finishing a course during the semester. Course withdrawal request must be in written form (email). The last day to withdraw is the last class day in November.

### ●Study Load (Self-directed Learning Outside Course Hours)

Homework is crucial for mastering new material and developing skills in applying concepts. Weekly homework will be

electronic. A general guideline says an average of 2 hours of study time per week (assignments and reviews) is necessary for each 1 credit hour.

●**How to Respond to Questions**

By email or in-person during office hours.

●**Notice for students**

It is essential to sit in the exams during the scheduled class time. **There will be NO make-up exams.** In the event of a missed exam due to a serious illness, accident, or family emergency, compelling **written** documentation of the reason for the absence will be required. If the reason is accepted, the final grade will be calculated from the appropriately weighted average from the homework and/or the other exam. If the reason is deemed insufficient, the absence will be unexcused, and zero points will be awarded for the missed exam.

**Attendance** is necessary for successful completion of this course. No points will be awarded for attending lectures, but attendance may be taken. The lectures will be hybrid (in-person and online), records of the lectures will be provided on Microsoft Teams.

**The exams** focus on problem-solving and will be similar to the homework problems. Both exams and homework will be on Pearson Mastering Chemistry.

<b>Textbook</b>	Chemistry (J. K. Robinson, J. McMurry, and R.C. Fay), 8th Ed., Pearson, 2020 ISBN: 9781292336145
<b>Reference Book</b>	Reference book will be announced in the first class if necessary
<b>Reference website for this Course</b>	

# Go in Japanese Culture

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065421
<b>Course Category</b>	Global Liberal Arts	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Fri / 4 (14:45~16:15)		
<b>Instructor</b>	SHIGENO Yuki		

## ●Goals of the Course 【Standardized across all programs】

If you want to be active in the international community, you have to have a deep understanding of traditional culture of your own country. The goal of this course is for the students to learn how to play Go with a standard board. Through this the students are expected to deepen understanding of Japanese traditional culture.

## ●Objectives of the Course

Learn the basic rules of Go and play a game.

## ●Course Contents or Plan

Lesson 1 Guidance, history of "Go" and its diffusion in Japan. The rules of Go, Individual games by mini (9x9) board.

Lesson 2-4 Introduction of Go activities, The rules of Go, Individual games by mini (9x9) board.

Lesson 5 Invite guest to listen to their experiences of Go and play against guest. Individual games by mini (9x9) board.

Lesson 6 Group challenge (solving problems in a group) Individual games by mini (9x9)board.

Lesson 7-9 Learn on a medium-sized (13x13) Go board

Lesson 10 Invite guest to listen to their experiences of Go and play against guest. Individual games by medium-sized (13x13)board.

Lesson 11-14 Learn on an official-sized (19x19) Go board.

Lesson 15 Group challenge (solving problems in a group), Individual games.

The contents may be replaced or changed depending on the situation.

## ●Course Prerequisites and Related Courses

No pre-requisites. Students from any background are eligible. The course is not designed for Go players, and suitable for students of wide background.

## ●Course Evaluation Method and Criteria

- Lessons attendance rate.

- Number of games played during the lectures.

- Some quizzes will be held during the lectures. Students who miss more than 30% of the quizzes will receive a W grade.

- For course withdrawal, students need to send a notification to the instructor. Those who are absent more than 5 times will receive a W grade.

## ●Study Load (Self-directed Learning Outside Course Hours)

Play to various people using the Go app "Go Quest" at least once of week. To inform Handle Name is necessary.

## ●How to Respond to Questions

by email

## ●Message from the Instructor

Go is a game which we called of "peace" where players respect each other and prosper together.

It is a special opportunity to experience Japanese culture. At the same time, there are people who are enjoying it in nearly 90 countries around the world, and it is also popular as a mind sport. If you visit a local Go club or Go event you will have a chance to get to know each other through Go.

The basic rules are simple, let's have a try!

## ●Courses taught by Instructors with practical experience

The lesson will take a teacher with practical experience (Nihon Ki-in) makes use of her practical experience.

<b>Textbook</b>	None
<b>Reference Book</b>	Go, A complete Introduction to the Game, by Cho Chikun Kiseido Publishing Company, 1997 ISBN: 978-4-906574-50-6
<b>Reference website for this Course</b>	<u>Go Quest</u> <a href="http://wars.fm/go9">http://wars.fm/go9</a> <u>International Go Federation (IGF)</u> <a href="http://www.intergofed.org">http://www.intergofed.org</a>

## Business Japanese 3

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065511
<b>Course Category</b>	Language and Culture	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Fri / 5 (16:30~18:00)		
<b>Instructor</b>	YASUI Akemi		

● **Goals of the Course 【Standardized across all programs】**

The aim of the course is intended to develop the Japanese language skills required by Japanese companies and Japanese-affiliated companies overseas, as well as to improve cross-cultural understanding.

● **Objectives of the Course**

The goal of this course is for students to acquire the skills required to survive in the Japanese business industry and to be able to use their knowledge both in business settings and in everyday situations. Students will also be able to practice how to introduce themselves and make presentations, using honorific expressions properly.

● **Course Contents or Plan**

This semester will cover the former half of the textbook as following:

- Lesson 1: Introduction & Lesson1 Self-introduction
- Lesson 2: Review on polite forms -part 1.
- Lesson 3: Review on polite forms -part 2 & Lesson2 Self-introduction
- Lesson 4: Lesson3 Answering the phone -part 1 / oral practice.
- Lesson 5: Lesson3 Answering the phone -part 2 / role play.
- Lesson 6: Lesson4 Making an appointment -oral practice & role play.
- Lesson 7: Lesson5 Attending a meeting -oral practice & role play.
- Lesson 8: Mid-term Exam and reflection.
- Lesson 9: Preparation for a presentation.
- Lesson 10: Lesson6 Receiving a complaint -oral practice & role play.
- Lesson 11: Lesson7 Reporting a complaint -oral practice & role play.
- Lesson 12: Lesson8 Handling a complaint -oral practice & role play.
- Lesson 13: Presentation
- Lesson 14: Summary and reflection
- Lesson 15: Final Exam

● **Course Prerequisites and Related Courses**

Students are expected to have basic knowledge of honorifics.

● **Course Evaluation Method and Criteria**

Students who need the course credits are required to meet the following conditions:

Quizzes 15%, Mid-term exam 20%, Presentation 15%, Final exam 20%, Active participation 30%  
TOTAL/100%

\*Students will be graded following the 5-step(S/A/B/C/F) or the 6-step(A+/A/B/C/C-/F) grade evaluation system, depending on the year of enrollment.

\*Students can withdraw from this course if they notify the instructor through the NUCT lecture site.

\*If a student is absent from classes more than 4 times, his or her grade will be "Absent."

● **Study Load (Self-directed Learning Outside Course Hours)**

It is strongly recommended to review the textbook and the materials outside of the class, since the period of class is limited.

● **How to Respond to Questions**

Students are able to contact the instructor via email.

● **Notice for students**

- Students are expected to participate actively in class activities throughout the course.
- The first lesson of the course will commence on October 7th, 2022.

<b>●Message from the Instructor</b> Depending on the situation of COVID-19 and the students' arrival in Japan, the class will either be face-to-face or online. Students will be notified via the NUCT site by the beginning of the semester.	
<b>Textbook</b>	『上級レベル ロールプレイで学ぶビジネス日本語』スリーエーネットワーク (ISBN: 978-4-88319-595-4)
<b>Reference Book</b>	『新・にほんご敬語トレーニング』アスク (ISBN: 978-4872178562)
<b>Reference website for this Course</b>	



## Studium Generale A

<b>Undergraduate / Graduate</b>	Undergraduate	<b>Registration Code</b>	0065521
<b>Course Category</b>	Global Liberal Arts	<b>Credits</b>	2.0
<b>Term (Semester) / Day / Period</b>	Fall Semester / Fri / 5 (16:30~18:00)		
<b>Instructor</b>	VASSILEVA Maria		

### ●Goals of the Course 【Standardized across all programs】

The name “Studium Generale” means “General Studies” in Latin and comes from old European universities, still used in many German universities. Studium Generale A course offers exposure to academic topics from the field of natural sciences, presented at an introductory level. The goal is to expose students to topics outside their major or research field, to different ideas - from both the speakers and other participants. The course cultivates a multifaceted view of the world and communication skills, which are fundamental competencies for future members of the society.

This course is open to students from both G30 international program, and the regular Japanese program. To students from the Japanese program, the course offers an opportunity to experience university lectures in English.

### ●Objectives of the Course

Students will increase their understanding and appreciation of wide range of fields in natural sciences (including business, arts, etc). Students will gain experience discussing with participants from other majors and countries, developing a wider view of the world and interdisciplinary approach to evaluating scientific problems.

### ●Course Contents or Plan

This course is conducted entirely online, in order to accommodate students from all Nagoya University campuses and Gifu University.

The format of the course includes (1) recorded talks by invited speakers and (2) guided discussions among participants.

A different speaker, from Nagoya University or elsewhere, gives each talk thus the content of each class session is different.

The lectures are provided as recorded videos and are accessible any time (on-demand online). Class time is used for interactive group discussions (live online).

The exact schedule and access to course materials will be provided on NUCT.

### ●Course Prerequisites and Related Courses

No prior scientific knowledge is required. Everyone is welcome!

Prerequisite for students from the Japanese program: at least intermediate English language abilities: ability to listen, speak and write in English.

### ●Course Evaluation Method and Criteria

This course provides a choice of TWO LEARNING TRACKS:

(1) Individual Learning Track:

Written report for each lecture (70%); Participation in 5 discussion sessions (30%).

(2) Project Learning Track:

Written report for 5 lectures (40%); Participation in 5 discussion sessions (30%); Student project (30%).

Lecture Reports: Each report should answer the provided questions and be several sentences long. Grading criteria for reports:

(1) understanding lecture content, (2) logical thinking and analysis of lecture content, (3) organization of text, and (4) English language usage. A detailed grading rubric is provided on the course NUCT site.

Student Project: Each team/individual student should prepare one project using a topic related to a course lecture. The project should be student(s)'s original work and be presented during the designated class at the end of the course. The project is graded based on (1) topic development, (2) presentation and (3) English language usage. A detailed grading rubric is provided on the course NUCT site.

Withdrawal (W) grade: Students who do not intent to complete the course may notify the course manager at any time during the course. Students who register but never come to class will receive an W grade.

### ●Study Load (Self-directed Learning Outside Course Hours)

This course will expect preparing and submitting report on lectures' content outside class hours. The report completion may sometime involve independent small online research.

Students who choose Project learning track will be expected to work on their project mainly outside class hours.

### ●How to Respond to Questions

For any questions, email the course manager Prof. Vassileva at the provided email address.

[Back to Index](#)

**●Notice for students**

1. This course is conducted in English and is entirely online.
2. Note that this course is also an open course! Participants who are not undergraduate university students register through a separate course website. Students taking this course for credit do not need to register there. Participants registering for the Open Course (through the separate course website) follow separate requirements to receive a Certificate of Completion. These requirements DO NOT apply to credit-seeking students registering as ILAS course.

**●Message from the Instructor**

Videos of some previous Studium Generale lectures may be seen on Nagoya University OCW page:

<https://ocw.nagoya-u.jp/>

Some lectures have been translated into Japanese and added to the NUAcL webpage:

<http://nuact.ilas.nagoya-u.ac.jp/ocw/index.html>

<b>Textbook</b>	None. All materials will be provided by the instructor.
<b>Reference Book</b>	None. All materials will be provided by the instructor.
<b>Reference website for this Course</b>	This course content will be available on NUCT designated course site