Integrated Japanese 2

Registration Code	2a: 0051121,　2b: 0051122	**Credits**	3.0
Course Category	Basic GE, Language I		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Mon., Wed., Thu. / 1 (8:45～10:15)		
Instructors	2a: TOKUHIRO Yasuyo 2b: HAJIKANO Are		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･En(P･C･Au)･Ag(B)		

●Objective of the Course

This course aims to provide a basic knowledge of Japanese which will enable students to function effectively in everyday life.

●Course Prerequisites

Prerequisite subjects for this course are Integrated Japanese 1 and Japanese Language Seminar (Communication) 1. Those who register for this course should also register for the Japanese Language Seminar (Communication) 2 in the same semester.

●Course Content

①Students will learn comprehensive Japanese, necessary to live both on and off campus.

Each lesson will cover new grammar, expressions and vocabulary (including Hiragana, Katakana and Kanji). A short test will be given each lesson.

②Students are required to read textbooks (especially "Elementary Japanese 2 DAICHI Translation of the Main Text and Grammar Notes") as preparation for each lesson.

●Evaluation Methods

Attendance 30%, Class Participation 30%, Mid-term Examination and Final examination 40%

●Notice for Students

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.

Students are not permitted to withdraw from this course for any reason after the registration.

In general, in the case of absence, make-up tests and examinations will not be possible (except in the case of extenuating circumstances). Three late arrivals or early departures of 15 minutes or more will be regarded as a one-lesson absence.

Textbook	1.『日本語初級2　大地 メインテキスト』 スリーエーネットワーク "Elementary Japanese 2 DAICHI Main Text" by 3A Corporation 2.『日本語初級2　大地 文型説明と翻訳＜英語版＞』スリーエーネットワーク "Elementary Japanese 2 DAICHI Translation of the Main Text and Grammar Notes" by 3A Corporation 3.『日本語初級2　大地 基礎問題集』スリーエーネットワーク "Elementary Japanese 2 DAICHI Workbook" by 3A Corporation 4.『Write Now! Kanji for Beginners』スリーエーネットワーク “Write Now! Kanji for Beginners" by 3A Corporation
Reference Book	None.

Fundamentals of Physics III

Registration Code	0051221	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Quarter 1) / Mon., Wed. / 2 (10:30～12:00)		
Instructor	TANIYAMA Tomoyasu		
Target Schools (Programs)	Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course

This is the third of a series of FP courses that cover the fundamentals of physics. It introduces the basic concepts and laws of electricity and magnetism, as well as their applications to solving a range of problems. Students will also be encouraged and guided to solve problems using different methods.

●Course Prerequisites

Fundamentals of Physics I & II and Calculus I&II.

●Course Contents

Chapter 21: Electric Charge
Chapter 22: Electric Fields
Chapter 23: Gauss' Law
Chapter 24: Electric Potential
Chapter 25: Capacitance
Chapter 26: Current and Resistance
Chapter 27: Circuits
Chapter 28: Magnetic Fields
Chapter 29: Magnetic Fields Due to Currents
Chapter 30: Induction and Inductance

●Evaluation Methods

Class attendance is required -- absentee must give a valid reason (e.g. doctor's certificate). A student will receive the ABSENT grade if his lecture attendance is below 75% or he does not sit for either Intermediate Exam or Final Exam without valid reason. After either exam, a student who wishes to receive the ABSENT grade must see Prof. TANIYAMA within one week after the exam. Students need to submit a Course Withdrawal Request Form when requesting course withdrawal.
Weightage of course components: Class participation and attendance: 5%, Lecture Assignment: 15%, Intermediate Exam: 40%, Final Exam: 40%

●Notice for Students

This course is as intensive as (if not more) than other FP courses. You are expected to register for Fundamental Physics Tutorial IIa (FPTIIa) and to spend at least several hours per week studying in order to do well.

Textbook	Fundamentals of Physics Extended 9th or 10th Edition International Student Version with WileyPLUS Set by Halliday, Resnick and Walker (John Wiley & Sons) 978-1-118-23072-5
Reference Book	Feynman Lectures On Physics (Vol. 2) by Richard Phillips Feynman (Pearson PTR)

Fundamentals of Physics IV

Registration Code	0051222	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Quarter 2) / Mon., Wed. / 2（10:30～12:00）		
Instructor	GELLOZ Bernard Jacques		
Target Schools (Programs)	Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the course

This is the last of a series of four courses that cover the fundamentals of physics. It focuses on mechanical and electromagnetic waves, as well as optics. Both conceptual understanding and problem solving will be emphasized. Some applications will also be discussed. Understanding waves and optics is important as preparation for more advanced subjects, for example in quantum mechanics, chemistry, and engineering.

●Course Prerequisites

Fundamentals of Physics I & II. Concurrent registration for *Fundamentals of Physics III* is required. Registration for *Fundamentals of Physics Tutorial IIb* is recommended as it serves as tutorial for this course.

●Course content

- Review of mechanical oscillations (part of chapter 15)
- Short introduction to electromagnetic oscillations (part of chapter 30)
- Fundamentals of waves and mechanical waves (chapter 15)
- Introduction to Maxwell’s equations (part of chapter 32)
- Electromagnetic waves (chapter 33)
- Images (geometrical optics) (part of chapter 34)
- Optical interference (chapter 35)
- Introduction to optical diffraction (part of chapter 36)

●Evaluation methods

Need to submit a Course Withdrawal Request Form when students have no intention of finishing a course during the semester. Deadline for submitting this request is just before the final examination.
Weightage of course components : Class attendance: 10%; Intermediate tests: 40%; Final test: 50%

●Notice for students

With two lectures and a tutorial (if you register for it) per week, it is important to work regularly and immediately clear any misunderstanding in order to do well in the course and tutorial.

Textbook	Fundamentals of Physics Extended 10th Edition International Student Version with WileyPLUS Set (John Wiley & Sons, 2010　ISBN-13: 978-1118230725)
Reference Book	Feynman Lectures On Physics (Vol. 2) by Richard Phillips Feynman (Pearson P T R)

Basic Mathematics

Registration Code	0051321	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Mon. / 3 (13:00 – 14:30)		
Instructor	DARPÖ Erik Olof		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course
The main objectives of this course are to review high school mathematics and to deepen knowledge and understanding of basic calculus and linear algebra in order to get the necessary proficiency to apply mathematics to economics and social sciences.

●Course Prerequisites
No particular prerequisites. Basic skills in manipulating algebraic expressions, solving equations etc. will be helpful.

●Course Contents
The course consists of the following sections:

1. Lines and their slopes
2. Introduction to functions, Functions and their graphs
3. Combinations of functions
4. Transformations of functions
5. Quadratic functions
6. Polynomial functions
7. Rational functions
8. Exponential and logarithmic functions
9. Systems of equations and inequalities
10. Derivatives

●Evaluation Methods
The examination consists of a midterm exam (35% of the total score), a final exam (45%), homework (10%) and quizzes (10%).

Course withdrawal: Any student who does not participate in the final exam will receive the grade “Absent”. It is not necessary to submit a course withdrawal request form.

●Notice for Students

It is recommended to prepare for each lecture by reading corresponding chapter in the textbook in advance.
As the students at this course are likely to have rather different backgrounds in and knowledge of mathematics, the workload required to follow the course will vary depending on individual circumstances.

Textbook	Rhonda, Huettenmueller: ***Pre-calculus demystified***, second edition McGraw-Hill Education; 2 edition (2012) ISBN-13: 978-0071778497
Reference Book	None.

Laboratory in Biology A

Registration Code	0011371	**Credits**	1.5
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II(1st year, Spring Semester) /Mon./3 (13:00～14:30), 4 (14:45～16:15)		
Instructors	OHKAWA Taeko, DOI Kazuyuki		
Target Schools (Programs)	Ag(B)		

●Objective of the Course

The aim of this course is to provide freshman/sophomore level students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology and to understand the applications of biology. The work of the course is done via a series of laboratory exercises. Students are required to attend all the classes. Students shall inform their instructors of dates they will miss class due to an excused absence prior to the date of that anticipated absence**.** There are no exams, but students are required to write laboratory reports.

●Course Prerequisites

None.

●Course Contents

1-1-1 Tree Identification
1-1-2 Interspecific comparison of tree leaves
1-1-3 Tree census 1
1-1-4 Tree census 2 (Analyses of tree census data)
1-2-1 Morphology of Plant 1 (Plant tissue systems and their cellular structures)
1-2-2 Morphology of Plant 2 (Leaf Surface Structure)
1-2-3 Morphology of Plant 3 (Structure of seedlings)
1-2-4 Protein Electrophoresis (SDS-Polyacrylamide Gel Electrophoresis)
1-3-1 Morphology of Animals 1 (Dissection of the goldfish)
1-3-2 Morphology of Animals 2 (Observation of Animal Tissue Sections)
1-3-3 Vertebrate Hormones (Regulation of metamorphosis in the African clawed frog larvae)
1-3-4 Morphology of Aves (Anatomy of the digestive system and urogenital system of the quail)

●Evaluation Methods

Grading will be based on attendance, lab reports, and assessment of performance in the lab.
The course withdrawal system is adopted. Students can withdraw from this course by submitting a request by the end of May

●Notice for Students

Textbook	Will be introduced in the class.
Reference Book	None.

German 3			
Registration Code	0031503	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	MAEDA Orie		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

French 3			
Registration Code	0031504	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	TADOKORO Sylvie		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Russian 3			
Registration Code	0031505	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	YAMAJI Asuta		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Chinese 3			
Registration Code	0031506	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	YU Ping		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Spanish 3			
Registration Code	0031507	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	NISHIMURA Hideto		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Korean 3			
Registration Code	0031508	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Mon. / 5 (16:30～18:00)		
Instructor	LI Huimin		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Japanese Language Seminar (Communication) 2

Registration Code	2a: 0052122, 2b: 0052121	**Credits**	3.0
Course Category	Basic GE, Language I		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue., Fri. / 1 (8:45～10:15)		
Instructors	2a: HAJIKANO Are 2b: TOKUHIRO Yasuyo		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･En(P･C･Au)･Ag(B)		

●Objective of the Course
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 Integrated Japanese 2. This course also covers the reading and writing of simple sentences. The textbooks are the same as Integrated Japanese 2.

●Course Prerequisites
The prerequisite subjects for this course are Integrated Japanese 1 and Japanese Language Seminar (communication) 1. Those who register for this course should also register for Integrated Japanese 2 in the same semester.

●Course Content
①Each lesson will cover grammar, expressions and vocabulary learned in Integrated Japanese 2 and practiced in short skits. Reading and writing are also covered. A short test will be given each day.
②Students are required to read textbooks (especially "Elementary Japanese 2 DAICHI Translation of the Main Text and Grammar Notes") as preparation for each lesson.

●Evaluation Methods
Attendance 30%, Class Participation 30%, Mid-term Examination and Final examination 40%

●Notice for Students
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.
Students are not permitted to withdraw from this course for any reason after the registration.
In general, in the case of absence, make-up tests and examinations will not be possible (except in the case of extenuating circumstances). Three late arrivals or early departures of 15 minutes or more will be regarded as a one-lesson absence.

Textbook	1.『日本語初級2 大地 メインテキスト』 スリーエーネットワーク "Elementary Japanese 2 DAICHI Main Text" by 3A Corporation 2.『日本語初級2 大地 文型説明と翻訳＜英語版＞』スリーエーネットワーク "Elementary Japanese 2 DAICHI Translation of the Main Text and Grammar Notes" by 3A Corporation 3.『日本語初級2 大地 基礎問題集』スリーエーネットワーク "Elementary Japanese 2 DAICHI Workbook" by 3A Corporation
Reference Book	None.

Advanced Japanese (Written Presentation) 1

Registration Code	0032118	**Credits**	2.0
Course Category	Basic GE, Language II		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Tue. / 1 (8:45～10:15)		
Instructor	NAGASAWA Itsuki		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

For information on syllabus, please go to the following address. (In Japanese only)

http://www.ilas.nagoya-u.ac.jp/student/syllabus/

Linear Algebra II

Registration Code	0052221	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 2 (10:30～12:00)		
Instructor	DARPÖ Erik Olof		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objectives of the Course
Linearity is one of the most fundamental concepts for the handling of quantities in current natural science. Indispensable in quantum mechanics and relativity, its use has spread across all branches of natural science and beyond. Linear algebra, developed in the nineteenth century, is the mathematical theory of linearity. The second half of this one-year course focuses on advanced concepts of Linear algebra, such as the notion of a (real) vector space, orthogonal maps, determinants, eigenvalues and eigenvectors. Its purpose is to give a deeper and broader understanding of the mathematical theory of linearity, as well as increased proficiency in mathematical reasoning and proof techniques.

●Course Prerequisites
While not a formal requirement, Linear Algebra I is strongly recommended

●Course Contents
Orthogonal maps, vector spaces, determinants and their applications, eigenvalues and eigenvectors, applications of eigenvalue theory, linear differential equations.

●Evaluation Methods and Criteria
There will be two main, written exams: midterm (35%) and final (45%). Additionally, there will be homework assignments (10%) and quizzes (10%). The final grade will be determined by the total amount of points obtained according to the following scale: S: 90-100, A: 80-89, B: 70-79, C: 60-69, F:0-59.

Course withdrawal: Any student who does not participate in the final exam will receive the grade “Absent”. It is not necessary to submit a course withdrawal request form.

●Notice for Students
1. The reference book is available in the Main library and in the Science library (enough copies in total for all students).
2. It is strongly recommended to register also to Mathematics Tutorial II b.

Textbook	None.
Reference Book	Otto Bretscher: ***Linear Algebra with Applications***, fourth edition, Pearson

Exploration of Japan：From the Outside Looking Inside

Registration Code	0052222	**Credits**	2.0
Course Category	InterD Liberal		
Term (Semester) / Day / Period	G-II (1st year, Spring semester) / Tue. / 2 (10:30～12:00)		
Instructor	WADA Hisako		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course

This course has three interrelated purposes. The first is to help students to learn some essential elements of Japanese culture and society. In class, students will be given opportunities to explore Japanese culture and cross-cultural issues through group discussion, presentation, and group project. The second is to help students to examine both difficulties/challenges and excitements/joys of intercultural communication by learning key concepts of intercultural communication. The third is to facilitate students' on-going intercultural communication and group work by increasing awareness of how their respective cultures, communication styles, and working styles affect group process and development. Lectures, discussions, simulation game, group interaction and presentation will be designed to provide students with insight and skills for building on their intercultural competence.

●Course Prerequisites

No prerequisites are required to register this course.

●Course content

1. Introduction, Icebreaking
2. Key Concepts of Culture and Intercultural Communication
3. Intercultural Simulation
4. Group Project
5. Group Presentation
6. Reflection of Group Project
7. Closing Session

●Evaluation methods

To be based on the combination of attendance, participation, reflection papers, group presentation, and term paper.

●Notice for students

1. In order to conduct activities and group work effectively, the class capacity is limited to a maximum of 20 G30 students. Please ensure that you attend the first class on Tuesday, April 17, 2018. If the number of students exceeds the stipulated class size, the course coordinator will advise students on registration policy.
2. All students who selected 'grade' status for this course are required to have a course attendance rate of 80% or higher. In the absence of extenuating circumstances, students failing to meet this attendance requirement will earn a 'fail'.
3. Students who come to class 30 minutes late without an acceptable excuse will be counted as absence.
4. Need to submit a Course Withdrawal Request Form when students have no intention of finishing a course during the semester. Please consult with the instructor about the course withdrawal.

Textbook	Handouts and reading materials will be provided for each class.
Reference Book	Bennett, M.J. (Ed.) (1998). *Basic concepts of intercultural communication*. Yarmouth, ME: Intercultural Press. Davis, R. J., & Ikeno, O. (Eds.). (2002). The Japanese mind. North Clarendon, VT: Tuttle Publishing.

Academic English Advanced 2

Registration Code	0052321	**Credits**	2.0
Course Category	Basic GE, Language I		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 3 (13:00～14:30)		
Instructor	MORITA Liang		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course
To develop students' academic presentation skills, writing skills, and encourage intellectual development.

●Course Prerequisites
None.

●Course Contents
In the previous year, the lecturer has included topics on globalisation, society, environment, and ethics, depending on student interest. The priority is on topics which spark interest with the students and engaging them in discussions, presentations and writing.

●Evaluation Methods
50% participation, 25% presentations and 25% writing.

●Notice for Students
Please notify the lecturer verbally or with the relevant paperwork if you are dropping out of the course.

Textbook	None.
Reference Book	None.

Laboratory in Biology B

Registration Code	0012372	**Credits**	1.5
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue./ 3 (13:00～14:30), 4 (14:45～16:15)		
Instructors	HISAMOTO Naoki, KINOSHITA Toshinori		
Target Schools (Programs)	Sc(P･C･B)･En(P･C)		

●Objective of the Course

Investigation and experimentation forms the foundation of science knowledge and is one of the core skills needed for scientific inquiry. This training course is designed to help students become familiar with experimental and explorative techniques for observation, description, and analysis of plant, animal and microbiological activities at the organismal, cellular, and molecular levels.

●Course Prerequisites

None

●Course Contents

1. Safety management for experiments
2. Microscope and plant cells
3. Floral development and shoot gravitropism in plants
4. Separation of photosynthetic pigment by paper chromatography
5. Observation of yeast cell cycle
6. Observation of *Caenorhabditis elegans*: mutation effects on morphology and behavior
7. Comparative observation of human blood cells and epithelial cells
8. Morphology and escape behavior of zebrafish larvae
9. Programmed cell death during chicken embryogenesis
10. Medaka teach us evolution and biodiversity
11. The chromosome as a data storage device
12. Characterization of the enzyme

The contents are subject to change depending on circumstances.

●Evaluation Methods

Valuation will be based on lab reports and assessment of performance in the lab.
Notes on course withdrawal system: If you wish to withdraw from this course, you should do so by the end of May. If you attend classes more than three times (without withdrawing from the course), your grade will be either S, A, B, C, or F.

●Notice for Students

We will explain in the 1st class, but lab coat and safety glasses are necessary for experiments.

Textbook	Will be distributed in the first class of this course.
Reference Book	None.

International Politics

Registration Code	0052421	**Credits**	2.0
Course Category	Arts Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 4 (14:45～16:15)		
Instructor	STEELE Jackie Frances		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course

This is an introduction to the subfield of Political Science known as International Relations (IR).

●Course Prerequisites

●Course Contents

This course provides an important foundation for upper-level courses in Political Science and Law where there is cross-over with international relations and international politics. This course provides students with a framework and set of analytical tools for understanding some of the most important issues in international affairs. After taking this course, you should be able to have a better understanding of the factors influencing those events and issues that you read about in the news. Through a series of lectures, discussions and readings the instructor is going to introduce the most important concepts and issues in IR. In this course, students learn by reading and reflecting on the assigned texts, listening to the instructor's lectures, participating in class discussion, asking questions, and writing papers. Students should expect to do 6 to 8 hours of preparation (reading, reflecting, preparing written assignments, reviewing notes, preparing for tests, etc.) per week.

●Evaluation Methods

Participation	20%
Quizzes	20%
Mid-term Exam	30%
Critical Paper	30%
Total	100%

●Notice for Students

1) This course requires mandatory attendance and active participation in class.
2) A detailed syllabus with reading assignments will be distributed on the first day of class.
3) Inexpensive used copies of the textbook are widely available; search online for the Fifth Edition.
4) Students need to submit a Course Withdrawal Request Form when requesting course withdrawal. If students do not submit a Course Withdrawal Request Form by the designated period, their grade is “F.”

Textbook	Mingst, Karen and Ivan Arreguin-Toft. 2010. *Essentials of International Relations, 5th Edition* ***(* MUST BE THE Fifth Edition; E-book available).*** New York: WW Norton and Co. **ISBN-13:** 978-0393935295 **ISBN-10:** 0393935299
Reference Book	Links to digital articles and newspaper articles provided in class.

Perspectives in Mathematical Science III			
Registration Code	0072481	**Credits**	2.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 4 (14:45～16:15)		
Instructor	MATSUMOTO Kohji, FUJIWARA Kazuhiro, HESSELHOLT Lars		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・En(P・C・Au)・Ag(B)		
For information on syllabus, please refer to the School of Science's one.			

Introduction to Applied Physics, Materials and Energy Engineering

Registration Code	0072482	**Credits**	2.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 4 (14:45～16:15)		
Instructor	SUGIYAMA Takahiko		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・Ag(B)		

For information on syllabus, please refer to the School of Engineering's one.

・Course Purpose
Fundamentals in applied physics, material science, and quantum energy engineering are introduced. Magnetism and superconductivity, and recent topics of quantum computers are discussed. Materials sciences to resolve many problems in design of physical properties, in refining and formation processing of materials are discussed. Recent developments in materials science are introduced. Introduction to nuclear fusion and quantum energy utilization are also discussed.

・Prerequisite Subjects
・Course Topics
1. Introduction to magnetism
2. Introduction to quantum computers
3. Introduction to superconductivity
4. Introduction to laser materials processing I
5. Introduction to laser materials processing II
6. Introduction to nuclear fusion I
7. Introduction to nuclear fusion II
8. Introduction to nuclear fusion III
9. Introduction to nuclear fusion IV
10. Fundamentals of ceramics and applications I
11. Fundamentals of ceramics and applications II
12. Fundamentals of ceramics and applications III
13. Fundamentals of metals and applications I
14. Fundamentals of metals and applications II

・Textbook
Lecture materials will be given during every lecture.

・Additional Reading

・Grade Assessment
Evaluation will be based on written reports to be submitted at each lecture.

・Notes

・Contacting Faculty

Fundamentals of Earth Science II

Registration Code	0052521	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue. / 5 (16:30～18:00)		
Instructor	HUMBLET Marc Andre		
Target Schools (Programs)	Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course

In the course "Fundamentals of Earth Science II" we examine the interactions between humanity and the Earth system. The Earth is a dynamic planet where the evolution of the environment and that of life are closely related. Human societies have been, and still are, profoundly influenced by climate change and catastrophic geologic events, such as volcanic eruptions and earthquakes. Entire civilizations have been decimated by droughts, and major cities have been destroyed by ground shaking, tsunamis or pyroclastic flows. Today the growing human population and its use of natural resources are affecting the environment on a global scale to an extent never attained before. Learning about the interactions between humanity and the Earth system is needed to use Earth's limited natural resources in a sustainable manner, minimize the risks of natural hazards and envisage a safe future for us all.

●Course Prerequisites

This course has no prerequisite, but prior completion of "Fundamentals of Earth Science I" is recommended.

●Course Contents

1. Introduction
2. Volcanoes
3. Seismology I: Earthquakes
4. Seismology II: Reconstruction of Earth's Interior
5. Biogeochemical cycles I: The Water Cycle
6. Biogeochemical cycles II: The Carbon Cycle
7. Climate I: Introduction to the Climate System
8. Climate II: Natural Variations
9. Climate III: Recent Global Change
10. Geological Resources

●Evaluation Methods

Two quizzes (multiple choice): 20% (10% each)
Mid-term exam: 40%
Final exam: 40%
Students 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 who wishes to withdraw from the course needs to submit a Course Withdrawal Request Form by the end of May in order to receive an "Absent" grade. This deadline does not apply to students who drop the class part-way through for an exceptional reason (e.g. illness, accident).
NB: A review session will be organized once a week in addition to regular class time for students who wish to receive additional information about the course content.

Textbook	None.
Reference Book	Title:Understanding Earth Authors: John Grotzinger & Thomas H. Jordan Publisher: W. H. Freeman Issue year: 2014 (7th edition) ISBN: 978-1464138744

Special Lecture (Studium Generale II)

Registration Code	0052621	**Credits**	2.0
Course Category	InterD Liberal		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Tue., Thu. / 6 (18:15～19:45)		
Instructor	VASSILEVA Maria		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･En(P･C･Au)･Ag(B)		

●Objective of the Course
Studium Generale offers exposure to various academic topics presented in an accessible way. It provides an opportunity to explore topics outside one`s major or research field.
ヨーロッパで800年の伝統を持つ「開かれた大学」の理念に基づいた講義を体験することを狙う。使用言語は英語。学内留学の気分!

●Course Prerequisites
No prerequisites! Everyone is welcome.

●Course Contents
This is an intensive course!
The course starts on 7th May 2019 and ends on 27th June 2019, running every Tuesday and Thursday during this period.
The format of the course includes guided discussions among participants and talks by invited speakers.
A different invited speaker, from Nagoya University or elsewhere gives each lecture, thus the content of each lecture is different. Lecture topics are renewed every semester.
Topics for this semester to be announced on the course website.
Detailed course information - time schedule and lectures information - available on the course website:
http://www.bio.nagoya-u.ac.jp/G30StudiumGenerale/
Videos of some previous talks may be seen on Nagoya University OCW page:
http://ocw.nagoya-u.jp/index.php?lang=en&mode=c&id=624&page_type=index
Some lectures have been translated into Japanese and added to the NUAcL webpage:
http://nuact.ilas.nagoya-u.ac.jp/ocw/index.html

Some of the topics in Fall 2018 included:
Understanding platform and network businesses through economics (Dr. Makoto Hanazono, School of Economics)
What can we do with mathematics? (Dr. Yukari Ito, Graduate School of Mathematics)
What`s the smell? – The scent of a molecule (Dr. Asraa Ziadi, ITbM)
The life of an opera singer is an adventure! (Azusa Dodo, opera singer)
See the sound, hear the light (Dr. Tsunehiko Kohashi School of Science)
Japanese independent cinema in the post-studio era (Dr. Ma Ran School of Humanities)

●Evaluation Methods
Participation (50%); written reports (50% of the grade).
Attendance is taken every class.
Short written reports are submitted at the end of EVERY CLASS by the attending students.
Each report should be a few sentences long, summarizing the main idea of the talk and describing what the student liked most about the talk.

●Notice for Students
1. Reminder of basic manners: talking with friends and working on the computer during lectures is very disruptive for the rest of the audience and especially for the speakers. Such behavior will not be tolerated.
2. Students who do not intent to complete the course need to submit a Course Withdrawal Form. This can be done at any time during the course.
この講義を最後まで履修しない場合には、履修取り下げ届を提出すること。この手続きは、授業期間中いつでも可能。
3. Please note that this course is also an open course! Audience who are not undergraduate university students register through the course website. ILAS students do not need to register there.
Participants registering for the open course (through the course website) follow separate requirements to receive a Certificate of Completion. These requirements DO NOT apply to ILAS students.

Textbook	None.
Reference Book	None.

Economics A

Registration Code	0053221	**Credits**	2.0
Course Category	Arts Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 2 (10:30～12:00)		
Instructor	DOI Yasuhiro		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course

The aim of this course is to help students understand the basic concepts of economics. It starts with the principles of economics. Then explores the field of microeconomics, the branch of economics that is concerned with the behavior of individual entities such as households and firms in a market. We will see how people make decisions in a market, as well as the strengths and weaknesses of the market mechanisms are interpreted in details. Upon successfully completion of the course, students should be able to understand the basic concepts of economics.

●Course Prerequisites

No prerequisites

●Course Contents

1. Introduction: What is Economics?
2. Principles of Economics (1)
3. Principles of Economics (2)
4. Principles of Economics (3)
5. Thinking like an Economist
6. Applications of Supply and Demand
7. Demand and Consumer Behavior
8. Midterm Quiz
9. Production and Business Organization
10. Supply in Competitive Markets
11.Imperfect Competition
12.Factor Markets
13.The Distribution of Income
14. Externalities
15. Final Exam

●Evaluation Methods

A midterm and final exam + extra home works

●Notice for Students

Students who decide to withdraw from the course should inform the instructor in writing. A copy of the designated form ("Course Withdrawal Request") should also be submitted.

Textbook	Principles of Economics, N. Gregory Mankiw (various versions)
Reference Book	None.

Information Literacy

Registration Code	0013301	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 3 (13:00～14:30)		
Instructor	KURIMOTO Hidekazu		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Goal and Objectives of the Course
The goal of this course is to help students master, through lectures and practical training, the fundamentals of information literacy. This refers to the ability to use information and communication technology such as computers and online networks for the gathering, transmission, organization and analysis of information. While the internet allows us to gather and transmit information at will, there are a few standard rules that need to be followed. The objectives of the course is for students to learn how to use computers and networks by fully understanding these basic rules.

●Course Prerequisites
Students must be able to use the e-mail user account listed in the Nagoya University ID Notification.

●Course Contents
(01) Information Literacy overview
(02) Overview of computer literacy, and word processing
(03) Electronic mail and information exchange
(04) Information security
(05) Ethics and etiquette in a network information-based society
(06) Information retrieval system (basic)
(07) Searching for information on the internet (applied / translation)
(08) The science and technology supporting an information-based society.
(09) Information representation on web pages (basic)
(10) Information representation on web pages (applied)
(11) Information processing using spreadsheet software (basic)
(12) Information processing using spreadsheet software (applied)
(13) Information processing using spreadsheet software (advanced)
(14) How to make PowerPoint presentation
(15) Actual presentation using PowerPoint
The course will cover the content above, but the order may vary slightly.
In order to promote autonomous learning through e-learning contents, experiments will be conducted using academically effective practical methods and content.

●Evaluation Method and Criteria
A withdrawal system is used for students wishing to withdraw from this course.
Students will be evaluated in comprehensively on performance in reporting (70%) and class participation (30%).
* Details will be given during the first lecture.

●Notice for Students
The enrollment capacity for G30 program is 8 students.
Always carry your Nagoya University ID (account) and password with you.
The practical training classes are inter-related and lateness or absence will interfere with the class.

Textbook	None. (Course-related links) http://www.human.nagoya-u.ac.jp/~kuri/lect/nulias.html
Reference Book	Will be given accordingly during class. The topics being covered in each lecture are posted on the web page.

Laboratory in Chemistry

Registration Code	0053321	**Credits**	1.5
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II(1st year, Spring Semester) / Wed. / 3 (13:00～14:30), 4 (14:45～16:15)		
Instructors	SAMJESKE Gabor Arwed, BUTKO Peter, SHUKU Yoshiaki		
Target Schools (Programs)	Sc (P･C･B)･En (P･C･Au)･Ag (B)		

●Objective of the Course

The objective of this course is to learn how to effectively perform experiments in a detailed, oriented manner including carefully taking notes of the procedures, findings, and questions that may arise from the experiments. The other objective is to clearly and concisely convey to others the findings of the experiments that support your conclusion. Motto: Perform the experiments by yourself, visually observe and record what happened in the experiments, and report the results clearly.

●Course Prerequisites

Students must have taken, or be taking concurrently, at least one of the following courses: Fundamentals of Chemistry 1, Fundamentals of Chemistry 2.

IMPORTANT: This course is a **PREREQUISITE** for **0681100 ANALYTICAL CHEMISTRY, Year 2, Term III, Fall Semester**

●Course Contents

week 1: Orientation and Safety Walkthrough.
week 2: Lecture 1 Reaction of Inorganic Ions and Ion Exchange Equilibrium.
week 3: Experiment 1 a. Estimation of Liquid Quantity. b. Dissolution of Salts. c. Water Soluble Salts and Solubility.
week 4: Experiment 2 a. Reaction of Metal Ions with Hydrogen Sulfide. b. Metal Hydroxides.
week 5: Experiment 3 a. Separation of Inorganic Ions and their Identification.
week 6: Lecture 2 Synthesis of Organic Compounds and Inorganic Compounds, Volumetric Analysis and Titration.
week 7: Experiment 4 a. Synthesis of Acetylsalicylic Acid. b. Measurement of Melting Point.
week 8: Experiment 5 a. Synthesis of Potassium Trioxalate Ferrate (III) Trihydrate. b. Photochemical Reaction.
week 9: Experiment 6 a. Titration of Monovalent Acids.
week 10: Lecture 3 Energy of Electromagnetic Waves and Spectra, Rate of Chemical Reaction and Energy.
week 11: Experiment 7 a. Atomic Spectra and Atom Structure. b. Spectra of Various Light Sources.
week 12: Experiment 8 a. Absorption Spectrum of Phenolphthalein. b. Determination of Concentration by Absorption Photometry.
week 13: Experiment 9 a. Chemical Oscillation Reactions.

●Evaluation Methods

Attendance is necessary for every week. In the event of a missed class due to a serious illness, accident or family emergency, compelling **written** documentation of the reason for the absence will be required. Tardiness will negatively impact your grade. You must submit your assignment every week. Plagiarism of assignments will not be tolerated.
Grading is based on participation in discussion and Q&A (8%), experiment reports (72 %),
final oral conversation (20 %); TOTAL: 100 %.
The Nagoya University course withdrawal system is adopted. Students need to submit a Course Withdrawal Request Form when students have no intention of finishing the course during the semester.

Grade "S": 100-90% (90 or more points), "A": 89-80% (89 - 80 pts), "B": 79-70% (79 - 70 pts), "C": 69-60% (69 - 60 pts), "F": 59-0% (below 59 pts). **WARNING: Missing more than three classes (it does not matter whether excused or not) means automatically failing the course.**	
Textbook	Introductory Chemistry Laboratory Manual, Shizuaki Murata, Fumi Urano, and Masahiro Yoshimura, Hideto Ito (Nagoya University, 2019)
Reference Book	None.

Introduction to Chemical and Biological Industries

Registration Code	0073381	**Credits**	2.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 3 (13:00～14:30)		
Instructor	YAMAMOTO Tetsuya		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･Ag(B)		

For information on syllabus, please refer to the School of Engineering's one.

Literature

Registration Code	0053421	**Credits**	2.0
Course Category	Arts Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. /4 (14:45～16:15)		
Instructor	MC GEE Dylan Patrick		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course

This course is a survey of early modern Japanese literature, spanning the genres of poetry, narrative prose, and drama. Working within this context, students will be introduced to basic concepts and methods in literary studies, and challenged to think critically about the linguistic, aesthetic, and cultural conditions that informed literary production and reception within the early modern Japanese context. General mastery of course material will be assessed through quizzes, written assignments, and a final exam; in addition, students will be required to analyze works in academic essays.

●Course Prerequisites

None.

●Course Contents

(*subject to revision)

Week 1: Course Overview
Week 2: Haikai Poetry and Poetics
Week 3: Haikai Poetry and Poetics
Week 4: Saikaku
Week 5: Saikaku
Week 6: Joruri Puppet Theater
Week 7: Kabuki
Week 8: Kabuki
Week 9: Sharebon
Week 10: Kibyoshi
Week 11: Nagoya Gesaku
Week 12: Readers and Lending Libraries
Week 13: Early Meiji Gesaku
Week 14: The Meiji Era Novel
Week 15: The Meiji Era Novel

●Evaluation Methods

The final grade for the course will be determined according to four categories of assessment. **Participation (25%)** will be assessed on perceived mastery of the course material, as demonstrated in class discussions and in-class exercises. **Quizzes (25%)** based on readings and material covered in class will be administered six times over the course of the semester, as indicated on the schedule. Of these six, the top five quiz grades will be calculated towards the final quiz grade. The **Final Exam (30%)**, to be held on the final day of class, will be comprised of ten questions, to be chosen from a pool of twelve. Lastly, students will compose a brief Final **Essay (20%)**, roughly 1500-1750 words in length, based on a topic related to the course material. Paper topics and the assignment description will be posted mid-semester; essays will be due in hard copy on the final day of

class.	
Textbook	No required textbook for purchase. Readings will be made available on the first day of class.
Reference Book	Listed on the final version of the syllabus (distributed on the first day of class)

Introduction to Production Engineering

Registration Code	0073481	**Credits**	2.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 4 (14:45～16:15)		
Coordinator	KASAHARA Jiro		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･Ag(B)		

For information on syllabus, please refer to the School of Engineering's one.

Coordinator: KASAHARA Jiro (kasahara@nuae.nagoya-u.ac.jp tel; 052-789-4404)
Class: Wednesdays, 14:45~16:15
Place: School of Engineering, Building 2, Room 222

Lecturers invited from leading Japanese industries will provide an insight to the current status of production engineering in Japan. The maximum number of students is limited to thirty, with foreign students having first priority. Sufficient level of English language capability, TOEIC score of 600 or its equivalent as a minimum, is required. Regular attendance, as well as the submission of several assignments, is required.

Topics to be covered:

1. Manufacturing Automation (Associate Prof. Norikazu Suzuki: Nagoya University)
4/17 Fundamentals of manufacturing technology
4/24 Advanced machining technologies and machine tools

2. Production Engineering in the Pump Industry (Ebara Corporation)
5/22 Introduction to technology for pumps
5/29 Production system for pumps

3. DENSO Manufacturing for Automotive Parts (Denso Corporation)
6/5 Production Systems for Automotive Parts
6/12 Concurrent Engineering & Lean Manufacturing in DENSO

4. Nano-technology in Hard Disk Drives (Nakanishi)
6/19 Introduction to Magnetic Recording Technology
6/26 Nano-technology and Tribology

5. Production Engineering in the Aerospace Industry (Mitsubishi Heavy Industries, Ltd.)
7/3 Introduction to the Aerospace Industry and Parts Production
7/10 Parts Fabrication Processes

Reference Materials:

Handouts will be distributed.

Evaluation:

Active participation and report.

Modern Biology

Registration Code	0053521	**Credits**	2.0
Course Category	Sciences Liberal		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 5（16:30～18:00）		
Instructor	BUSTOS Itzel		
Target Schools (Programs)	Hu (J)・La (S)・Ec (S)・Sc (P・C・B)・En (P・C・Au)・Ag (B)		

●Objectives of the Course
The purpose of this course is to learn the philosophy, principles, and techniques of modern biology. This course is particularly designed for those who have not learned biology previously or whose major is other than biology, and who may think that they do not need to know any biology at all. The topics are covered in a rather general, overview manner, but certain level of diligence in grasping concepts and memorizing the terminology is expected.

●Course Prerequisites
Your name should be listed in this course in order to attend the class. If you want to attend only a specific lecture, please make request a week in advance.

●Course Contents
1. Ch. 1. Introduction to Life on Earth // Ch. 2. Essential Chemistry
2. Ch. 3. The Molecules of Life // Ch. 4. A Tour of the Cell
3. Ch. 5. The Working Cell // Ch. 6. Cellular Respiration
4. Ch. 7. Photosynthesis // Ch. 8. Cellular Reproduction
5. Exam 1
6. Ch. 9. Patterns of Inheritance
7. Ch. 10. The Structure and Function of DNA // Ch. 11. How Genes Are Controlled
8. Ch. 12. DNA Technology // Ch. 13. How Populations Evolve
9. Ch. 14. How Biological Diversity Evolves // Ch. 15. The Evolution of Microbial Life
10. Ch. 16. Plants, Fungi, and the Move onto Land // Ch. 17. The Evolution of Animals
11. Exam 2
12. Ch. 18. An Introduction to Ecology and the Biosphere
13. Ch. 19. Population Ecology // Ch. 20—Communities and Ecosystems
14. Ch. 21. Unifying Concepts of Animal Structure and Function
15. Final Exam

●Evaluation Methods
Two exams
Activity during classes
Final exam

●Notice for Students
It is essential to assist each exam during the scheduled class time. There will be NO make-up exam.
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.

●Message from instructor

Withdrawal Date: May 9, 2019, 18:00

IMPORTANT: Students wishing to withdraw from the course without academic penalty must do so by submitting the Withdrawal Form to the Instructor before the date and time indicated above. That is the only way to receive an “Absent” grade, which does not count in GPA. After the date above, students may not withdraw from the course: a numeric grade will be calculated according to the evaluation method given in this syllabus, and the resulting letter grade will be reported to the Administration at the end of the course. This grade will count in GPA.

Textbook	Campbell Essential Biology, 6th Edition, by Simon, Reece, and Dickey (Pearson Education, 2016).
Reference Book	None.

Special Mathematics Lecture (Statistics)

Registration Code	0053621	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Wed. / 6 (18:15～19:45)		
Instructor	RICHARD Serge		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)･Sc(P･C･B)･En(P･C･Au)･Ag(B)		

●Objective of the Course

Statistics deals with the collection, the analysis, the interpretation and the representation of data, always with the notion of uncertainty in the background. It plays a central role in many scientific investigations, and it is one of the most popular mathematical tools used in the industry. During this one semester course, the basic notions of statistics will be introduced. Depending on the interest of the audience, various concrete applications will be further developed.

●Course Prerequisites

Basic knowledge on calculus and linear algebra, as provided in Calculus I & II and in Linear algebra I & II. Some knowledge on probability as available on

http://www.math.nagoya-u.ac.jp/~richard/lecturefall2017.html

would also be useful, but the necessary material will be briefly reviewed at the beginning of the course. Motivated 1st year students can also attend without these prerequisites but after a discussion with the instructor.

●Course Contents (preliminary version)

Probability (a short reminder)
Common distributions
Statistical inference
Hypothesis testing
Regression models
Further applications

●Evaluation Methods

The final grade will be based on the active participation during the lectures and on some written reports. It is necessary to submit a Course Withdrawal Request Form when the student has no intention of finishing the course during the semester.

●Notice for Students

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

Textbook	Material will be provided during the lectures
Reference Book	Reference books will be provided during the lectures

First Year Seminar B

Registration Code	0054221	**Credits**	2.0
Course Category	Basic GE, 1Y Seminar		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 2 (10:30～12:00)		
Instructor	MC GEE Dylan Patrick		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course

This course aims to educate students in the social sciences and humanities about current social, economic and political issues in contemporary Japan, as well as to foster critical inquiry, analysis and debate. Rather than a traditional lecture, this course is structured as a student-centered, academic simulation of the Japanese House of Representatives (lower house of the National Diet), or Model Diet. Each student participant will be expected to role-play as a legislator, according to an assigned party affiliation and background profile. Student responsibilities will include researching select domestic or foreign relations issues, working in pairs to prepare and present six brief position papers, engaging in debate over proposed bills, voting on bills, and finally, reporting to constituents.

●Course Prerequisites

First Year Seminar A.

●Course Content

Week 1: Course Overview
Week 2: History of the Japanese Diet
Week 3: Japanese Legislative Politics Post-1993
Week 4: Student Presentations
Week 5: Overview of domestic issues facing contemporary Japan
Week 6: Drafting of Bills, Committee Review
Week 7: Model Diet, Session 1: Introduction of bills, Position paper presentations, Debate, and Vote
Week 8: Model Diet, Session 2: Introduction of bills, Position paper presentations, Debate, and Vote
Week 9: Model Diet, Session 3: Introduction of bills, Position paper presentations, Debate, and Vote
Week 10: Overview of international issues facing contemporary Japan
Week 11: Drafting of Bills, Committee Review
Week 12: Model Diet, Session 4: Introduction of bills, Position paper presentations, Debate, and Vote
Week 13: Model Diet, Session 5: Introduction of bills, Position paper presentations, Debate, and Vote
Week 14: Model Diet, Session 6: Introduction of bills, Position paper presentations, Debate, and Vote
Week 15: Final Report Presentations

●Course Evaluation Methods

The final grade for the course will be determined according to six categories of assessment, outlined in the paradigm below. Participation (30%) will be assessed according to contributions made during committee work (such as bill drafting) and Model Diet sessions (involvement in discussion and debate). As a member of an assigned committee, each student will be responsible for researching issues, drafting bills, presenting introductions of bills during sessions, and presenting position papers in support of bills introduced by his or her committee. Bills are brief (approximately 250-500 word) pieces of proposed legislation that students will co-author with members of assigned committees. Bill Introductions (20%--2@10% each) are brief (approximately 500-750 word) summaries of bills proposed by one's assigned committees. Position Papers (20%--2@10%) are brief (approximately 500-750 word) essays that present opinions about issues, and argue for or against proposed bills. The presentation (10%) is a brief (approximately seven-minute) presentation about the legislator that you will be role-playing over the course of the semester. The exam (5%) consists of twenty multiple-choice questions about the Japanese Diet and Postwar and Contemporary Japanese Politics. The Final Report (15%) is a brief (500-750 word) report, addressed to one's own constituency, which explains

and defends bills that you have proposed and votes that you have cast over the course of the semester. The final reports will be presented on the final day of class.

	% of grade
Participation	30%
Presentation (Week 4)	10%
Exam (Week 5)	5%
Bill Introductions (2 @ 10% each)	20%
Position Papers (2 @ 10%)	20%
Final Report	15%

Letter Grade Conversions	
90-100	S
80-89	A
70-79	B
60-69	C
<60	F

●Notice for Students

Please note that the maximum enrollment for this class is 12 students. In the event that the class fills, please register for the other section of First Year Seminar B, which is offered at the same day and time. I cannot open additional seats in this section, and if more than twelve students are enrolled at the start of the semester, the additional enrollees will be asked to transfer to the other section. First Year Seminar B is designed to be a student-centered module that promotes active learning. When more than twelve students enroll in the class, it becomes very difficult manage practical aspects of instruction and maintain the pedagogical standards of the class. Many thanks for your understanding and cooperation.

Textbook	All course materials will be provided on the first day of class.
Reference Book	A list of references materials relevant to the class will be provided on the first day of class.

First Year Seminar B

Registration Code	0054222	**Credits**	2.0
Course Category	Basic GE, 1Y Seminar		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 2 (10:30~12:00)		
Instructor	LEE Wan Ling		
Target Schools (Programs)	Hu(J)･La(S)･Ec(S)		

●Objective of the Course

This course intends to provide the basic knowledge, principles and practices of finance to the students. Upon completion, students should be able to demonstrate an understanding of finance discipline and develop their analytical skills through the presentation and discussion on several topics related to current financial issues.

●Course Prerequisites

None

●Course Contents

At the first week, several topics related to finance studies will be assigned to students. Students are requested to find a reading material (articles, news, case study) related to the topics and provide a report. In each class after, students will present their topics in the class. Following the presentations, all the students have to participate in the discussion by raising their questions and comments. Marks will be given based on level of engagement and relevance of contribution to topic under discussion.

In quarter 1 of the semester, students will be working in group and in quarter 2, students will be working individually.

The main topics that will be covered include: the financial environment, monetary system, banks and other financial institutions, the federal reserve system, investments, interest rate, time value of money, bonds and stocks, business organization, financial analysis and international finance.

●Evaluation Methods

Students need to submit a Course Withdrawal Request Form when requesting course withdrawal.

Class participation (30%), Group assignment: report and presentation (30%), individual assignment: report and presentation (30%), quiz (10%).

Textbook	Melicher, R. W. & Norton, E. A. (2013). Introduction to Finance: Markets, Investments and financial management. 15 edition. Wiley. ISBN-13: 978-1118492673
Reference Book	None.

Fundamentals of Biology II

Registration Code	0054223	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 2 (10:30～12:00)		
Instructor	VASSILEVA Maria		
Target Schools (Programs)	Sc(P・C・B)・En(C・Au)・Ag(B)		

●Objective of the Course

This course`s main focus is to provide students with working understanding on how human body functions and the ability to use this knowledge to take informed decisions in everyday health-related situations. Further, short introduction is given on basic concepts of ecology. These sections will allow students to critically evaluate agricultural and ecological issues.

The course emphasizes on conceptual understanding of the biological topics discussed, rather than on memorization of terms and facts. Course assignments are prepared with the goal of providing an opportunity to practice conceptual and analytical thinking.

Students will have a regular opportunity to engage in discussions, and hone their teamwork skills on team projects.

●Course Prerequisites

There is no prerequisite knowledge for this course. Even students who didn't take Fundamentals of Biology 1, or didn't study Biology in high school, are encouraged to join. Exchange students are also welcome.

●Course Contents

1. Introduction to the basics of life
2. Animal anatomy and physiology
   - 2.1 Unifying concepts of animal structure and function
   - 2.2 Nutrition and digestion
   - 2.3 Gas exchange
   - 2.4 Circulation
   - 2.5 The immune system
   - 2.6 Control of water balance
   - 2.7 Hormones and the endocrine system
   - 2.8 Reproduction and embryonic development
   - 2.9 Nervous system
   - 2.10 The senses
   - 2.11 How animals move
3. Introduction to Ecology
   - 3.1 The biosphere: an introduction to Earth`s diverse environments
   - 3.2 Behavioral adaptations to the environment
   - 3.3 Population ecology
   - 3.4 Communities and ecosystems
   - 3.5 Conservation biology

●Evaluation Methods

Evaluation is based on in-class participation (10%), group assignments (10%), individual written assignments (10%) and exams (total of 70%). Weekly written assignments - summary of the upcoming class material in the form of mindmap - are the core assignments for this course. Exams emphasize on analytical and problem-solving skills.

* Students who do not intent to complete the course need to submit a Course Withdrawal Form. This can be done at any time during the course.

●Notice for Students * Mastering Biology (www.masteringbio.com) is an online system that accompanies the main textbook for this course. This system will not be integrated into the course assessment methods. The choice of acquiring an access and using it will be left to the discrepancy of each individual student. * Students are expected to read the appropriate textbook chapter before class. Classes emphasize discussions and problem-solving questions, thus coming prepared is essential.	
Textbook	1. Campbell Biology: Concepts & Connections, 7th Ed. or later Jane B. Reece / Martha R. Taylor / Eric J. Simon / Jean L. Dickey Benjamin Cummings, 2011 (The same textbook as in Fundamentals of Biology 1) 2. OpenStax Biology Free downloadable textbook (http://openstaxcollege.org) This is an excellent alternative to the main textbook for the course.
Reference Book	None.

Fundamentals of Chemistry II

Registration Code	0054321	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 3 (13:00～14:30)		
Instructor	SHIN Jiyoung		
Target Schools (Programs)	Sc(P･C･B)･En(P･C･Au)･Ag(B)		

●Objective of the Course

The main purpose of this course is to grasp what chemistry is all about and to learn the respective key principles and elementary knowledge in different subjects of chemistry. Fundamentals of Chemistry II begins with chemical kinetics and equilibrium, advances to thermodynamics and electronics, and finishes with chemical structures, properties, and reactions.

●Course Prerequisites

Fundamentals of Chemistry I

●Course Contents

Chapter 13. Chemical Kinetics
Chapter 14. Chemical Equilibrium
Chapter 15. Aqueous Equilibria: Acids and Bases
Chapter 16. Applications of Aqueous Equilibria
Chapter 17. Thermodynamics: Entropy, Free Energy, and Equilibrium
Chapter 18. Electrochemistry
Chapter 19. Nuclear Chemistry
Chapter 20. Transition Elements and Coordination Chemistry
Chapter 21. Metals and Solid-State Materials
Chapter 22. The Main-Group Elements
Chapter 23. Organic and Biological Chemistry

●Evaluation Methods

Examination [total 70%: two midterms (20% for each) and one Final (30%)], Attendance (10%), and Assignments (20%).

●Notice for Students

Course withdrawal and failure: In the cases of any unavoidable reasons such as sickness, accident, or no attendance school, student(s) may get a grade of 'Absent' through the judgment of the course-instructor and the students, when the student(s) submit a 'Course Withdrawal Request Form' to receive the 'Absent' grade. Furthermore, no submission of sickness/absence reports and lack of attendance score will result in 'F' grade. It is for the protection of other attendances in the course from frequent absences of specific/uncertain student(s).
Cautious information: Whoever provides any suspicious action in any exam will lose his/her entire credits of all coursework in the semester, which is the University law.

Textbook	Chemistry(John E. McMurry, Robert C. Fay, and Jill K. Robinson), Seventh Edition, : Global edition, 2016 (ISBN 10: 9781292092751)
Reference Book	None.

Mathematics Tutorial 2a

Registration Code	0054421	**Credits**	1.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 4 (14:45～16:15)		
Instructor	RICHARD Serge		
Target Schools (Programs)	La(S)・Ec(S)		

● Objectives of the Course:
The aim of this course is to deepen the understanding of calculus and to cultivate the ability to apply mathematical knowledge. The course is mainly intended for students taking Calculus II.

● Course Prerequisites:
Some notions on functions of one variable, as seen in Calculus I. A basic knowledge of linear algebra will be an asset.

● Course Content:
Exercises sheets will be provided each week before the tutorial, and will be available on the web site of the course. Homework will be due every week during the tutorial.

● Evaluation Methods and Criteria:
Your final grade will be determined by homework (50%) and quizzes (50%).

● Notice for Student:
This course uses the course withdrawal system. It is necessary to submit a Course Withdrawal Request Form when the student has no intention of finishing the course during the semester. The grading scale will be
S: 90-100, **A**: 80-89, **B**: 70-79, **C**: 60-69, **F**: 0-59.

Textbook	None.
Reference Book	Free reference books or lecture notes are available on the website of the course.

Mathematics Tutorial 2b

Registration Code	0054422	**Credits**	1.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Thu. / 4 (14:45～16:15)		
Instructor	DARPÖ Erik Olof		
Target Schools (Programs)	La(S)・Ec(S)		

●Objectives of the Course
The objective of this course is to provide essential mathematical knowledge necessary to further studies in mathematics and science at university level. The course is primarily intended for students taking the course Linear algebra II.

●Course Prerequisites
While not a formal requirement, Linear Algebra I is strongly recommended.

●Course Contents
Orthogonal maps, vector spaces, determinants and their applications, eigenvalues and eigenvectors, applications of eigenvalue theory, linear differential equations.

●Evaluation Methods and Criteria
The assessment of this course is the same as the assessment of the course Linear Algebra II.

Course withdrawal: Any student who does not participate in the final exam will receive the grade “Absent”. It is not necessary to submit a course withdrawal request form.

●Notice for Students
1. The reference book is available in the Main library and in the Science library (enough copies in total for all students).
2. It is strongly recommended to register also to Linear algebra II.

Textbook	None.
Reference Book	Otto Bretscher: ***Linear Algebra with Applications***, fourth edition, Pearson

German 4			
Registration Code	0034502	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	NAKAMURA Toshiya		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

French 4			
Registration Code	0034503	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	ARAI Misako		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Russian 4			
Registration Code	0034504	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	SAVELIEV IGOR		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Chinese 4			
Registration Code	0034505	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	XU Chunyang		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Spanish 4			
Registration Code	0034506	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	MITO Hiroyuki		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Korean 4			
Registration Code	0034507	**Credits**	1.5
Course Category	Basic GE, Language I		
Term(Semester)/Day/Period	G-II (1st year, Spring Semester) / Thu. / 5 (16:30～18:00)		
Instructor	KIM Wonyoung		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		
For information on syllabus, please go to the following address. (In Japanese only) http://www.ilas.nagoya-u.ac.jp/student/syllabus/			

Calculus II

Registration Code	0055221	**Credits**	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Fri. / 2 (10:30～12:00)		
Instructor	RICHARD Serge		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

● **Objectives of the Course:**
Analysis is the field of mathematics that describes and analyzes quantitative changes, and the central methods are differential and integral calculus. These methods are essential techniques in natural science, and have recently found increasing applications also in social sciences. The aim of the second half of this one-year course is to provide a solid understanding of functions of several real variables.

● **Course Prerequisites:**
Some notions on functions of one variable, as seen in Calculus I. A basic knowledge of linear algebra will be an asset.

● **Course Content:**
The basic notions related to the study of functions of several variables, as for example: partial derivatives, maximum and minimum, implicit functions theorem, multiple integrals, change of variables, Jacobian matrix, surface and line integrals. Some elements of vector calculus will also be introduced.

● **Evaluation Methods and Criteria:**
The final grade will be determined by quizzes (30%), the midterm (30%) and a final exam (40%). The grading scale will be **S**: 90-100, **A**: 80-89, **B**: 70-79, **C**: 60-69, **F**: 0-59. It is necessary to submit a Course Withdrawal Request Form when the student has no intention of finishing the course during the semester.

● **Notice for Students:**
It is strongly encouraged to attend the Mathematics Tutorial IIa which is linked to this course.

Textbook	None.
Reference Book	Free reference books or lecture notes are available on the website of the course.

Health and Sports Science: Practicum (Exercise and Sports I)

Registration Code	0055321	**Credits**	1.0
Course Category	Basic GE, Sports		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Fri. / 3 (13:00～14:30)		
Instructor	YOKOYAMA Keiko, MIZUNO Takamasa		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course
This class emphasizes the development of fundamental TABLE TENNIS skills, knowledge of game rules and tactics of play. The students are expected to deepen their understanding of the ways, meanings and values about moving their own body and communicating with others.

●Course Prerequisites
The students' success in this class is extremely dependent on their ACTIVE participation and ON TIME attendance. The students are expected come to class ON TIME and READY to participate. The students missing more than FOUR classes for any reason (excused or unexcused) will fail the course. Any students who are disruptive, disrespectful, or not putting their effort into the class will also fail the course or have their attendance/participation grade reduced.

●Dress Code and Equipment
Comfortable SPORTSWEAR and INDOOR SPORTS SHOES must be worn. If the appropriate attire is not worn to this class, attendance will not be counted.

●Course Contents
1. An orientation session for incoming freshmen.
2. An orientation session for table tennis class.
3. Fundamental skill training.
4. Offensive & defensive tactics.
5. Singles & Doubles games.

●Evaluation Methods
Attendance and active participation, 70%
Table tennis skills & knowledge, 20%
Communication Skills, 10%
Total 100%

●Notice for Students
The students MUST attend the first orientation class and BRING your photo (3x4 cm) for incoming freshmen. The details of this course will be explained in the session. The course withdrawal system is available in the course. If students do no submit a Course Withdrawal Request Form by the designated period, their grade is “F”. The students need to submit a Course Withdrawal Request Form to instructor when requesting course withdrawal directly or by any ways to the instructor before the end of 4th class (including the first orientation class). In principle, instructors may not give students a grade of “Absent” without the submission of the Course Withdrawal Request Form. However, in the case of an avoidable reason, such as sickness, accident, or no school attendance, instructor may give a grade of “Absent” based on their judgment.

Textbook	None.
Reference Book	None.

Contemporary Japanese Society

Registration Code	0075481	**Credits**	2.0
Course Category	Open		
Term (Semester) / Day / Period	G-II (1st year, Spring Semester) / Fri. / 4 (14:45～16:15)		
Instructor	NOMIZU Tsutomu		
Target Schools (Programs)	Hu(J)・La(S)・Ec(S)・Sc(P・C・B)・En(P・C・Au)・Ag(B)		

●Objective of the Course

This course, taking the form of lectures and discussion classes, aims to introduce students to the main features of contemporary Japanese society. Areas of focus include aspects of Japanese art, law, politics, economy, education, modernisation and the environment. This course is designed focusing on NUPACE program students.

●Course Prerequisites

None.

●Course Contents

1. Apr 12 Course Introduction (NOMIZU Tsutomu, IEEC)
2. Apr 19 The Japanese Education System – Examination Hell in Japan (FURUYA Reiko, Engineering)
3. Apr 26 The Japanese Courts (Frank BENNETT, Law)

May 3 *National Holiday*

4. May 10 Styles of Reasoning and Socialisation in Japan: Comparisons with the US and France (WATANABE Masako, Edu.)
5. May 17 Aging Society and Women in Japan (CHUN, So Hyun, GSES)
6. May 24 Japan's acceptance of Western science and technology during the Meiji period (ITO Akiko, IEEC)
7. May 31 Japanese Animation (WAKUI Takashi, Humanities)
8. Jun 7 Modernisation in Meiji Japan: Field trip to Meiji-mura (NOMIZU Tsutomu, IEEC)
9. Jun 14 Development Issues of Okinawa and Japanese Economy (UMEMURA Tetsuo, GSID)
10. Jun 21 Nationalism in Japan (LINLEY, Matthew, IEEC)
11. Jul 28 Japan's Leading Innovations in Disasters Risk Reduction Technology (LELEITO Emanuel, Engineering)
12. Jul 5 Japanese Business Practices (MEHRIBAN Ahmad, Econ)
13. Jul 12 Cross-cultural Exchange in Japan (TAKAI Jiro/TANIGUCHI Hirohito, Edu)
14. Jul 19 Atomic Energy Development & Environmental Problems (NOMIZU Tsutomu, IEEC)

●Evaluation Methods

Attendance & Participation: 25%
Written Reports: 75% (25% x 3)

Withdrawal can be adopted. More than four class absences will cause withdrawal.

●Notice for students

Students are required to write three reports, ensuring that they attach bibliographies of reference materials referred to. Each report's length should be at least 1,500 words (approximately four sides of A4-size paper), exclusive of foot/endnotes and bibliography. The first of the reports should deal with one of the topics covered in weeks 2~5 of the course (submission deadline: May 24, 2019); the second with a topic covered in weeks 6~10 (submission deadline: June 28, 2019), and the third report with a topic covered in weeks 11~14 (submission deadline: Jul 26, 2019). Students should submit their reports in a MS Word or PDF document to <nomizu@iee.nagoya-u.ac.jp>, indicating the name of the instructor to whom they are addressed.

Up to approximately 10 students from G30 programs may be accepted because the course will be fully occupied by NUPACE students.

Textbook	Reference and reading materials for each class will be made available to students one week in advance. Students should ensure that they read the assigned materials prior to attending class.
Reference Book	None.