1 General Guidelines

(1) Please refer to the Course Registration Guidebook (separate book) for vital information about university registration procedures.

(2) Any changes made to courses will be posted on bulletin boards.

(3) Course Timetable

Each course period begins and ends as follows (one period = 75 minutes):

Period	Time
1st period	8：40− 9：55
2nd period	10：10−11：25
3rd period	12：15−13：30
4th period	13：45−15：00
5th period	15：15−16：30
6th period	16：45−18：00

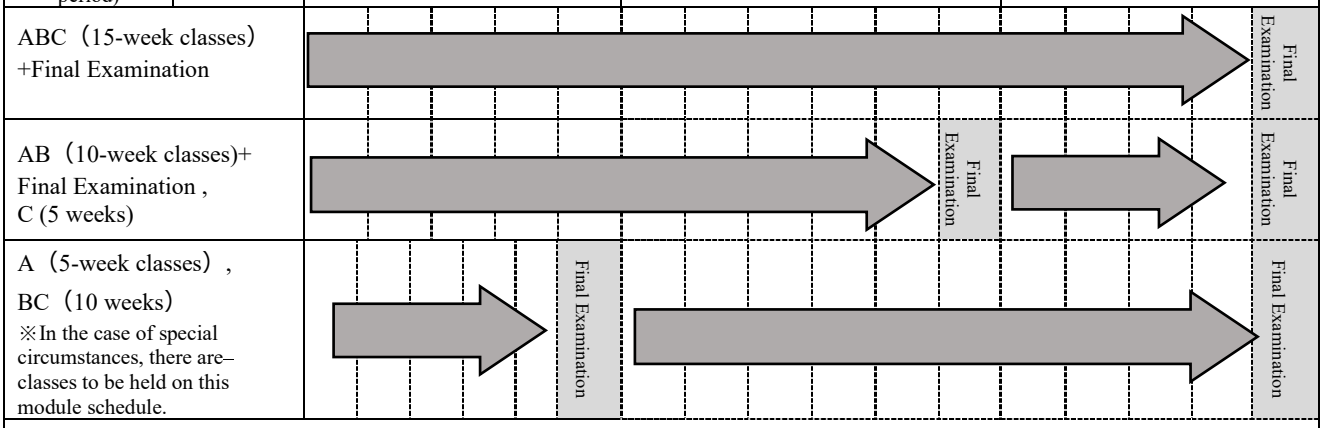
Break
9：55−10：10
11：25−12：15
13：30−13：45
15：00−15：15
16：30−16：45

(4) Modules and Semesters

An academic year comprises spring and fall semesters. Spring semester comprises Spring A, Spring B, and Spring C modules. Fall semester comprises Fall A, Fall B, and Fall C modules.

Depending on the combination of modules, the classes can be conducted in many ways as indicated in the table below. Therefore, some classes will be held during the final examination period of other subjects.

		A module	B module	C module
AY 2024 Semesters (Including Examination period)	Spring	Apr 15–May 22	May 24-–Jul 4	Jul 5–Aug 1
	Fall	Oct 1–Nov 7	Nov 11–Dec 25	Jan 6-–Feb 13



Final examination period for Spring A module: May 23
Final examination period for Spring A & B modules: Jun 28, Jul 1,2,3,4
Final examination period for Spring A to C modules: Aug 2,5,6,7,8
Final examination period for Spring C module: Aug 9
Final examination period for Fall A module: Nov 8
Final examination period for Fall A & B modules: Dec 19,20,23,24,25
Final examination period for Fall A to C modules: Feb 4,7,10,12,13
Final examination period for Fall C module: Feb 14,17

Note:

■ The final exam day of Spring A and C, Fall A and C

This is the day for the examination of the courses completed in the A or C module, and in principle, the courses that are not applicable will be canceled. Whether the exam will be implemented on the final exam date, the schedule, etc., will be announced for each course. Take the exam according to the instructions of the instructor in charge of the class.

(5) Description of Contents

Example:

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Class Room	Instructor	Course Overview	Remarks
AB10191	Philosophy	1	1.0	1	Spring A・B	Tue.6	1D204	Taro Tsukuba	Research on basic philosophical problems	CDP Limited to students of College of Humanities Identical to AC11999

Letters and numbers indicate organization, classification, and field.

Standard registration year to take the course

Classes will be held in Spring A・ B, on Tuesdays during the 6th period.

Classes will be held in Room 204 in 1D Bldg.

Please note that there are various descriptions such as prerequisites.

■ About class that do not have a regular class schedule

Depending on the courses, there are courses that do not have a regular class schedule as below. For the latest information such as the implementation schedule, please check KdB or notices.

・Intensive: A style of class in which the day/period is not regular and is held on the schedule concentrated to a certain degree.

・by request: a course in which a class is conducted irregularly on an as-needed basis

・by appointment: a course in which a small class is conducted regularly but with possible date changes based on teacher–student negotiation

・NT: NT is an abbreviation of "Non-timetabled attendance is possible." The day/period of the class has not been set; however, please refer to the recommended day/period for attendance mentioned in the syllabus and take the class as planned while focusing on the report submission deadlines. Furthermore, you may take other classes for which the day/period coincides with the recommended day/period for the attendance of NT subjects. However, if you wish to simultaneously take other subjects, please ensure to carefully plan and consider in advance whether assignments for submission, etc., are compatible.

(6) Course Numbers

Each academic course has a course number assigned by subject areas or fields for the convenience of registration. Registration will be made using course numbers.

(7) Standard Academic Year

Each course is scheduled to be taken at a specific academic year, considering the educational content and traits of each course. As a general rule, please take courses corresponding to your academic year in your program.

(8) Course Methods

Course methods can be lectures, class exercises, experiments, etc. There are courses that implement two or more methods. The different course methods in the Course Catalogue are listed below

Code	Course Type
1	Lectures
2	seminar
3	practical training, experiments, skills practice
4	lectures and seminar
5	lectures and practical training, experiments, skills practice

Code	Course Type
6	seminar and practical training, experiments, skills practice
7	lectures, seminar and practical training, experiments, skills practice
8	Graduation Thesis, Graduation Research, etc.
0	Others

(9) Classrooms

The following abbreviations specify classrooms and laboratories. (the last 3 digits are the classroom no.)
Example:

Classroom	Location
1D201	1D Bldg, 2nd Floor
2B507	2B Bldg, 5th Floor
3A403	3A Bldg, 4th Floor
4B211	4B Bldg, 2nd Floor
9L101	International Lecture Bldg , 1st Floor
9P209	9P Bldg（University Hall Bldg.C）2ndFloor
CA 310	Center for Education of Global Communication（CEGLOC）Bldg.A, 3rd Floor

About the classroom information, please refer to the campus map (booklet) and university website.
https://www.tsukuba.ac.jp/en/about/campus-access/tsukuba-campus/

(10) Online Courses

(i) About Course Implementation Method

The University of Tsukuba has classified the methods of conducting classes as follows since fall semester AY 2020. About the implementation method for each course, the plan for the beginning of the academic year is described in the remarks column in the Course Catalogue on the university homepage, and the latest information is described in the remarks column of KdB and the syllabus.

Additionally, notifications may be posted on the Web Bulletin Board (TWINS).

1. face-to-face
   Courses that are conducted face-to-face for all classes.
2. face-to-face (partially online)
   Courses that are conducted through a combination of face-to-face and online classes, with more than half of classes conducted face-to-face.
3. Online (partially face-to-face)
   Courses that are conducted through a combination of face-to-face and online classes, with more than half of classes conducted online.
4. Online(Asynchronous)
   Courses that are conducted online for all classes, with most of the classes offered asynchronously.
5. Online(Synchronous)
   Courses that are conducted online for all classes, with most of the classes conducted synchronouslye.

(ii) manaba

“manaba” is a learning management system that creates a course page that can be used from the web for each lesson, enabling teachers and students to share teaching materials electronically as well as to set and submit assignments. Once the course registration is completed at TWINS, you will be able to access the courses you take the next day or later. In addition to sharing teaching materials, manaba will play a central role in conducting online lessons, such as watching video files and submitting assignments.

(iii) Software and Hardware Used in Class

Our students can use various microsoft-provided services, including Teams, a groupware used in online classes, and Stream, a video distribution service. To take online classes, terminals such as personal computers, tablets, smartphones, and communication lines are required. For more information on the procedures required to take online classes, please refer to the “Online class guidance” section of the Academic Computing & Communications Center and Media Center.
（https://www.cc.tsukuba.ac.jp/wp/remote-lecture-students/）

(iv) Handling of Materials Used in Class

Students must not copy, reprint, or divert the materials distributed in the class without permission such as teaching materials, lecture videos, audio, etc.

(v) Regarding the Response to COVID-19

Information is posted on the university website, so please check it from time to time.
（https://www.tsukuba.ac.jp/about/antidisaster-crisismanagement/covid-19/）

(11) Explanation of Remarks

"G-Course"

G-course indicates specially designated subjects for all the students in the University to acquire some abilities required to grow as global human resources.
The abilities required include (i) foreign language ability, (ii) abundant culture, international understanding, (iii) communicative competence, (iv) understanding of diversity, the utilization competency (v), interdisciplinary thinking, (vi) identity and confidence, (vii) positive thinking and practical skills, (viii) ability to self-express, professional.

"Course Implementation Method"

Refer to the (9) Online Courses (ｉ) About Course Implementation Method

"CDP (Academic and Social)"

Courses that contain helpful information for career development through professional education.

"Courses open to Exchange student"

It means that the course is available to Exchange student.

"Lectures are conducted in ○○"

It means that the course will be taught in ○○ (Language).

"Identical to ○○"

It is the same course as ○○ (Course number). Subject number that you have to register differs depending on the affiliation you belong to. Please confirm the subject number when you register on the TWINS.

"Elements of gender (○○)"

Subjects with this notation include gender-specific elements as follows:
(wear) The subject that needs changing clothes to a special wear or the wear different for men and women.
(equipment) The subject with equipment used is different for men and women.
(contact) The subject that has physical contact with other students.
(accommodation) The subject with lodging.
(special rule/pair/team) The subject that has the special rules or making pairs/teams by gender.
(other) The subject with gender-specific elements other than those mentioned above such as the difference of the standard value of physical fitness measurement, the gender of the participant is written in the entry of the Tsukuba Marathon, etc.

"Interdepartmental course"

Courses designated as "interdepartmental courses" are selected courses taught in English offered by various university departments. These interdepartmental courses are, in general, entry-level courses with contents accessible even to students of a different major. Students may register to take these courses if they meet the requirements indicated in the remark section on the KdB syllabus. Eligibility of these courses as "Specific Foundation Subjects" must be confirmed with your major department to obtain credits toward your graduation. Note that our students are eligible to take all undergraduate courses offered by the University unless explicitly stated on the syllabus. Therefore, you are not restricted from taking other undergraduate courses outside your major.

2 Course Registration

(1) Course Registration

Course registration includes submitting a registration plan to the provosts of your affiliated school after planning and receiving guidance and advice from instructors, etc. Course registration is the most important procedure prior to taking courses at the University of Tsukuba. Refer to the Course Registration Guidebook given at the time of admission and confirm the credits necessary for graduation for your program. Please ensure to complete the registration procedures within the specified time period.

If you are unable to register during the specified period due to unavoidable circumstances, please contact the Undergraduate Student Affairs of the Academic Service Office. If you do not register for a course, you will be unable to take the course. You will not be able to earn credit for the course, even if you take the final examination.

For courses and credits required for graduation, please refer to the Course Registration Guidebook distributed at the time of enrollment. Furthermore, this booklet (the Course Catalogue) providing information on courses offered is distributed every academic year. The subject area for which you should take your courses will vary with the affiliated schools/colleges of the major you would like to study.

In addition, the selection of majors of schools/colleges is already established depending on your affiliated schools/colleges.

Registration Process

Necessary Documents for Course Registration	
Booklets	Purpose of Use and Contents
Course Registration Guidebook (By Year of Admission) Distributed at the Time of Enrollment	●The Course Registration Guidebook provides the following information about registration. Please read this guide carefully. - Credits required for graduation - How to register for the courses required to qualify for the educational personnel license - Approval to transfer credits from other universities (e.g., pre-admission [transfer, re-admission, etc.], TOEFL, study abroad, etc., during residency at the University of Tsukuba). - Continue your studies at the University of Tsukuba after returning from studying abroad. - Annual limits for course loads ●If you have any questions, please contact the section of Undergraduate Student Affairs of the Academic Service Office.
Course Catalog (This volume) Distributed Each Academic Year	●The Course Catalogue provides information about courses as scheduled at the beginning of each academic year. ●It is also posted on the university website. Both will display the schedule as planned at the beginning of the academic year. ●If new courses are added or changes of classrooms, dates, times, etc., occur, the information will be posted on the Web Bulletin Board (TWINS) for students, so please be aware of them. Please specifically focus on the updates during the course registration period in April.

Syllabus Updated Each Academic Year	●The Syllabi provides an outline of topics to be covered in courses, as well as other relevant information. Some colleges provide syllabi online on their homepages or Curriculum Scheduling Support System (KdB).
Using Curriculum Scheduling Support System (KdB), you can search the latest subject information as well as read the syllabus of courses (registered courses only) on the website. https://kdb.tsukuba.ac.jp/	

↓

Orientation (Advising Session)	●Orientation meetings are offered in academic centers Center for Education of Global Communication, Sport and Physical Education Center, etc. (Advising session on general subjects, such as foreign language, physical Education, etc.) ●Undergraduate orientation (Academic advising held by each college)

↓

Course Registration Scheduling	●It is the students' responsibility to register for courses in accordance with the graduation requirements outlined in the Course Registration Guidebook. ●To be counted as credits toward graduation, courses must be accurately selected according to the subject area. ●If you have any questions on graduation requirements and subject area, contact the section of Undergraduate Student Affairs of the Academic Service Office.

↓

Online Registration	●Students should complete the course registration through the TWINS system: https://twins.tsukuba.ac.jp/ Please refer to the (2) "Registration Period and Rules" shown below and follow the "TWINS operation manual" ●Details about the distribution of Guidebook, etc., will be separately informed.

(2) Registration Period and Rules

Registration Period

- **Registration Period**

Module that Courses Starts in:	Registration Period
Spring A	Friday, April 5 – Friday, April 26
Spring B	Friday, April 5 – Thursday, May 30
Spring C	Friday, April 5 – Thursday, July 11
Fall A	Friday, April 5 – Monday, October 14
Fall B	Friday, April 5 – Friday, November 15
Fall C	Friday, April 5 – Thursday, January 16

Note: **General physical education courses for first-year college students.** Students should take those classes on the specific dates as stated at the orientation held by the Physical Education Center. Please register for those classes within the registration period.

Registration dates for **intensive courses** are announced when it is determined that it will be

offered. For intensive courses already assigned, course numbers and semesters in the Course Catalogue will have the same registration dates as above, so please register during those dates.
Course adjustments will be made for courses that overcapacity in **Multidisciplinary Subjects**. Announcements regarding course adjustment and offerings will be posted on the Web Bulletin Board. Pre-registration is required to take the "Multidisciplinary Subjects for the Undergraduate Degrees" offered in Japanese.

Rules Regarding Registration

(1) Some intensive courses cannot be registered until the schedules are settled, even if they have course numbers and modules listed on this "Course Catalogue"
Information will be uploaded on the bulletin boards once the schedule is approved. Please register for courses within the designated period.

(2) You may not register for courses if their schedules overlap.

(3) When you are going to take courses with prerequisites or take courses from other colleges, please notify the instructors on the first day of the course.

(4) As a general rule, the retake of courses for which you have already completed credits (retake of the same course) is not permitted.

(5) If you have any inquiries or doubts regarding your grade evaluation, contact with your instructor. If you cannot solve the problem, ask the Academic Service office regarding the method of inquiry to the Educational Organization that conducts the course and fill in the prescribed form. Thereafter, submit it to the Academic Service office.

3.General Foundation Subjects（Common Foundation Subjects etc.）

(1) Multidisciplinary Subjects

There are two curricula in the Multidisciplinary Subjects, and the curriculum for which you can register depends on the program of the affiliation and the year of enrollment.

Regarding the graduation requirements and number of credits, refer to “Course Registration Guidebook” and “School Specific Regulations in Regard to Registration” of the year of enrollment.

【Curriculum i】

-First Year Seminar
-Invitation to Arts and Sciences
-Multidisciplinary Subjects for the Undergraduate Degrees

【Curriculum ii】

- Multidisciplinary Subjects I（Freshman Seminar※, Introductory Subjects）
- Multidisciplinary Subjects II
- Multidisciplinary Subjects III

※The course name of “Freshman Seminar” was changed to “First Year Seminar” in AY 2022. Students who were admitted in AY 2021 or earlier and have not yet taken “Freshman Seminar” are required to take “First Year Seminar.”

For the latest information on the Course List of Curriculum i or Curriculum ii, please refer to the following KdB (https://kdb.tsukuba.ac.jp/).

Course List of Curriculum i:
English Program Course Catalog
＞General Foundation Subjects
＞First Year Seminar
Invitation to Arts and Sciences
Multidisciplinary Subjects for the Undergraduate Degrees
Multidisciplinary Subjects for the Undergraduate Degrees (Upper Years Only)

Course List of Curriculum ii:
English Program Course Catalog
＞General Foundation Subjects
＞Multidisciplinary Subjects I
Multidisciplinary Subjects II
Multidisciplinary Subjects III

Alternative Subjects as Multidisciplinary Subjects II for English Program Students

Students belonging to the English Programs in Curriculum ii who have not received the number of credits for Multidisciplinary Subjects II required for graduation can substitute the following subjects for Multidisciplinary Subjects II by completing the application procedure.

If you would like to request the following subjects to be admitted as Multidisciplinary Subjects II then apply to the Academic Service Offices after registering the following subjects.

Note:

If you did not apply to the Academic Service Offices, the following subjects will not be admitted as Multidisciplinary Subjects II and will be treated as specified in the graduation requirements for each program.

Alternative Subjects as Multidisciplinary Subjects II, Subject type A

Course No.	Course Name	Course Offering Term	Weekday, Period	Credits	Remarks
1290041	Japanese Issues I (Japanese Nature and Geography)	Spring Vacation	Intsnsive	1.0	
EB11651	Introduction to Ecology	Fall AB	Wed 5	1.0	*1
EB11851	Introduction to Plant Physiology	Spring AB	Thu 4	1.0	*1

*1 The above courses cannot be substituted for students enrolled in the College of Biological Sciences before AY 2018.

Alternative Subjects as Multidisciplinary Subjects II, Subject type B

Course No.	Course Name	Course Offering Term	Weekday, Period	Credits	Remarks
1290051	Japanese Issues II (Introductory Japanese History)	Spring AB	Mon 2	1.0	
1290061	Japanese Issues III (Japanese Life and Culture)	Fall AB	Mon 1	1.0	
1290071	Japanese Issues IV (Japanese Language and Society)	Fall C	Fri 1,2	1.0	

1290081	Japanese Issues V(Japanese Socio-culture)	Spring Vacation	Intensive	1.0	
1290091	Japanese Issues VI (Living and Learning among the Japanese)	Fall AB	Fri 2	1.0	
BE21861	Introduction to Economics	Spring AB	Mon 1,2	2.0	*2
BE21371	Introduction to Law	Spring AB	Tue 2,3	2.0	
BE21381	Introduction to Political Science	Fall AB	Mon 1,2	2.0	
BE21391	Introduction to Sociology	Fall AB	Thu 4,5	2.0	

*2 The above courses cannot be substituted for students enrolled in the College of Agro-Biological Resource Sciences AY 2019.

Alternative Subjects as Multidisciplinary Subjects II, Subject type C

Course No.	Course Name	Course Offering Term	Weekday, Period	Credits	Remarks
1290101	Japanese Culture	Fall AB	Mon 1	1.0	
1290131	Career Design I	Fall AB	Mon 2	1.0	
1290111	Japanese Society	Spring AB	Mon 1	1.0	
1290141	Career Design II	Fall C	Mon 1,2	1.0	
1290121	Modern Japanese History	Spring AB	Mon 2	1.0	
1290151	Career Design III	Spring C	Mon 1,2	1.0	
1290031	Global issues and society	Fall C	Intensive	1.0	

Established parent

Requirements
Multidisciplinary Subjects Curriculum i

First Year Seminar

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
1190212	First Year Seminar	2	1.0	1	Sum Vac	Intensive		Ortolani Andrea	This course is designed to help students become familiar with the educational system and campus life at the University of Tsukuba. Important information regarding living in Japan as a foreign resident and a general introduction on Japanese society will also be provided.	For students in Undergraduate Program of International Social Studies. Lecture is conducted in English. face-to-face
1190222	First Year Seminar	2	1.0	1	Sum Vac	Intensive		Kuwayama Hidekazu, Wada Hiroshi, Irving Louis John, Ying Beiwen, Kang Seung Won, Yoshioka Yosuke, Parkner Thomas	This course is designed to help students become familiar with the educational system and campus life at the University of Tsukuba. Important information regarding living in Japan as a foreign resident and a general introduction on living in Tsukuba city will also be provided. Lecture is conducted in English. face-to face.	For students in Interdisciplinary Program in Life and Environmental Sciences Lecture is conducted in English. face-to-face
1190232	First Year Seminar	2	1.0	1	Sum Vac	Intensive	3B213	Islam Monirul Muhammad, Sharmin Sonia, Takeyasu Kotaro	This is a series of information sessions for Interdisciplinary Engineering students new to the University of Tsukuba. It includes an orientation seminar to help the students make their course plans and also facility visits on campus, such as a library, health center, cafeterias, and some selected Research Laboratories in the College of Engineering Sciences and that of Engineering Systems to become familiar with campus life.	Only for IDE students Lecture is conducted in English. face-to-face
1190312	First Year Seminar	2	1.0	1	FallAB	Thu2		Sandoval Felipe, Morio Takahiro	Students in Bachelor's Program in Global Issues will obtain various information to live a fruitful life.	Only for BPGI students. Lectures are conducted in English. Lecture is conducted in English. face-to-face

Invitation to Arts and Sciences

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
1228511	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Ortolani Andrea	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in International Social Studies Lecture is conducted in English. CDP. Online(Asynchronous)
1228521	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Wada Hiroshi, Oguchi Taichi, Okane Izumi, Matsuzaki Hitomi	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in LES Biological Sciences Lecture is conducted in English. CDP. Online(Asynchronous)
1228531	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Ying Beiwen	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in LES Agro-Biological Resource Sciences Lecture is conducted in English. CDP. Online(Asynchronous)

1228541	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Parkner Thomas	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in LES Geoscience Lecture is conducted in English. CDP. Online(Asynchronous)
1228551	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Ho Kiong,Hisatake Koji,Shibuya Kazuko	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in Medical Science English Program Lecture is conducted in English. CDP. Online(Asynchronous)
1228561	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Hassan Modar	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in IDE Program Lecture is conducted in English. CDP. Online(Asynchronous)
1228571	Invitation to Arts and Sciences	1	1.0	1	FallA	by appointment		Sandoval Felipe,Morio Takahiro	This lecture serves as an introduction to bachelor's course education at the university. This course invites students to learn about academic methodology at the university level, and cultivates an understanding of the academic field in which they are majoring, as well as the ability to understand the relationship with related fields.	For students in BPGI Lecture is conducted in English. CDP. Online(Asynchronous)

Multidisciplinary Subjects for the Undergraduate Degrees

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
1290011	Learning and Ethics of Research	1	1.0	1	FallAB	Wed2	3A212	Kakeya Hideki,Dairaku Koji,Izawa Jun,Date Hisashi,Puentes Sandra Milena	This course introduces fundamental concepts related to learning and research activities in a university, from an ethics point of view. In particular, it includes the following topics: definition of science, research methodology, research misconduct, mentor and advisor, responsible authorship, peer review and publication, data management, collaborative research, conflict of interests, whistleblowing and obligation to protect the public.	Student number limit may apply. Priority is given to IDE Students. Lecture is conducted in English. face-to-face
1290021	OMOTENASHI —Japanese Culture and Manner—	1	1.0	1	FallAB	Thu3	5C301	Egami Izumi	・To understand Japanese culture, history, and etiquette. ・To learn about Japanese customs, traditions, and manners from the perspective of cross-cultural communication. ・To learn business etiquette in Japan based on an understanding of the principles of protocol (international etiquette).	The number of students is limited to 20. If the number of students exceeds the capacity, priority will be given to international students, mainly first-year students. The Lecture is conducted in English. face-to-face Lecture is conducted in English. face-to-face
1290031	Global Issues and Society	1	1.0	1, 2	FallC	Intensive	CA305	Morio Takahiro	It is crucial to solve global issues for constructing sustainable society. We tackle the issues of water, waste management, urbanization, eco-system and climate change shown in the Sustainable Development Goals (SDGs), and we explain the causes, mechanism, spatial and temporal variabilities, and solution from the viewpoints of multiple stakeholders.	Students already completed Global Issues and Society (1C90131) are not allowed to take this class. Lecture is conducted in English. face-to-face

1290041	Japanese Issues I (Japanese Nature and Geography)	1	1.0	1, 2	Spr Vac	Intensive	9P102	Yamamoto Chinami	In this course, we will read about and discuss various topics relating to the nature and geography of Japan.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues I (Japanese Nature and Geography) (1A90011) 、 (8333001) 」 cannot enroll. Lecture is conducted in English. 2/18-2/21, 2/25 face-to-face Details will be given in class or posted on manaba.
1290051	Japanese Issues II (Introductory Japanese History)	1	1.0	1, 2	SprAB	Mon2	9L202	Yamamoto Chinami	In this course, we will read about and discuss history of Japan starting from the formation of Japan till the end of feudal era.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues II (Introductory Japanese History) (1B90021) 、 (8333011) 」 cannot enroll. Open in even number academic years. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290061	Japanese Issues III (Japanese Life and Culture)	1	1.0	1, 2					In this course, we will read about and discuss various topics relating to the history, traditions, and people of Japan.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues III (Japanese Life and Culture) (1B90031) (8333021) 」 cannot enroll. Open in odd number academic years. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290071	Japanese Issues IV (Japanese Language and Society)	1	1.0	1, 2	FallC	Fri1,2	9L101	Vanbaelen Ruth	In this course, we will read about and discuss various topics relating to the Japanese language and its relation to Japanese culture and society.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues IV (Japanese Language and Society) (1B90051) 、 (8333031) 」 cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.

1290081	Japanese Issues V (Japanese Socio-culture)	1	1.0	1, 2	Spr Vac	Intensive	9P209	Vanbaelen Ruth	In this course, we will read about and discuss various topics on society and culture relating to Japan and the Japanese.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues V (Japanese Socio-culture) (1B90071)、(8333041)」cannot enroll. Lecture is conducted in English. 2/18-2/19, 2/21 face-to-face Details will be given in class or posted on manaba.
1290091	Japanese Issues VI (Living and Learning among the Japanese)	1	1.0	1, 2	FallAB	Fri2	9L101	Vanbaelen Ruth	In this course, we will read about and discuss various topics relating to learning Japanese in Japan.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Issues VI (Living and Learning among the Japanese) (1B90081)、(8333051)」cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290101	Japanese Culture	1	1.0	1, 2	FallAB	Mon1	9L202	Yamamoto Chinami	In this course, we will read about and discuss various topics relating to minds of Japanese and Japanese culture.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Culture (1C90011)、(8333091)」cannot enroll. Open in even number academic years. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290111	Japanese Society	1	1.0	1, 2	SprAB	Mon1	9L202	Yamamoto Chinami	In this course, we will read about and discuss various topics relating to Japanese society.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Japanese Society (1C90051)、(8333101)」cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.

1290121	Modern Japanese History	1	1.0	1, 2					In this course, we will read about and discuss the history of Japan from Meiji period to this current day.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Modern Japanese History (1C90091) 、(8333111) 」cannot enroll. Open in odd number academic years. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290131	Career Design I	1	1.0	1, 2	FallAB	Mon2	9L202	Yamamoto Chinami	In this course, we will read about and discuss various topics related to employment following graduation. Some topics may include: employment in Japan, basic knowledge of Japan, history of politics and economy, work habits, human relationships, etc.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Career Design I (1C90031) 、(8333061) 」cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290141	Career Design II	1	1.0	1, 2	FallC	Mon1,2	9L202	Yamamoto Chinami	In this course, we will read about and discuss various topics related to current Japanese issues which will be beneficial for employment following graduation.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Career Design II (1C90071) 、(8333071) 」cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290151	Career Design III	1	1.0	1, 2	SprC	Mon1,2	9L202	Yamamoto Chinami	In this course, we will read and discuss about various topics related to some Japanese issues which will be beneficial for employment following graduation. Some topics may include: past, present, and future of many aspects of Japan, etc.	Limited to 30 students. Priority is given to EP Students. Students who have already completed 「Career Design III (1C90111) 、(8333081) 」cannot enroll. Lecture is conducted in English. face-to-face Details will be given in class or posted on manaba.
1290161	OMOTENASHI —Japanese Culture and Manner—	1	1.0	1	SprAB	Thu3	5C301	Egami Izumi	・To understand Japanese culture, history, and etiquette. ・To learn about Japanese customs, traditions, and manners from the perspective of cross-cultural communication. ・To learn business etiquette in Japan based on an understanding of the principles of protocol (international etiquette).	The number of students is limited to 20. If the number of students exceeds the capacity, priority will be given to international students, mainly first-year students. The Lecture is conducted in English. face-to-face Lecture is conducted in English. face-to-face

1290171	Forest	1	1.0	1	SprA	Mon1,2		Tsumura Yoshihiko	The lecture will focus on forests from multiple perspectives, including natural science (succession, vegetation, genetics, tree diseases, wood use), environment (topography, soil, global warming), recreation, and utilization, and will include not only accumulated research results but also the latest findings on the situation and various problems surrounding forests in Japan and overseas.	Enrollment is limited to EP Program students only. Lecture is conducted in English. Online(Asynchronous)
1290181	Introduction to Inclusive Smart Society I	1	1.0	1, 2	FallAB	by request		Matsushima Takashi,Miyauchi Hisae,AKIYAMA Hajime,Aranha, Claus	This course delves into the concept of an inclusive smart society, with a particular focus on its three fundamental components: “people”, “technology”, and “governance/policy”. Emphasizing the triad outlined by Nam and Pardo (2011), we explore the essential elements that constitute a "smart" society, where investments in human and social capital, coupled with robust ICT infrastructures, propel sustainable growth and elevate the overall quality of life. To further understand how these three components interact and to comprehend the principles behind creating a society that is truly "smart," students will be exposed to salient information and debates regarding the nature of disabilities and the inclusion of all individuals including those with disabilities.	【Registration 4/5-9/20】【 Limited to 200 students】 Lecture is conducted in English. Online(Asynchronous) This course is conducted in English. Limited to 200 students. Details will be posted on manaba.
1290191	Introduction to Inclusive Smart SocietyII	1	1.0	1, 2	FallAB	by request		Matsushima Takashi,Kimura Takeshi,Yoshihara Yukari,Morio Takahiro,Hassan Modar,Sato Takahiro,Ono Seiji,Nagata Shinichi	Following the Introduction to Inclusive Smart Society I, this course introduces students to several chosen topics in designing and enhancing ISS: Popular Culture, Comparative Religion, and Sports for the Challenged people and those with disabilities as potential case studies. Students are asked to broaden their perspectives into ISS by learning those topics and exchanging their views via discussion among Japanese and American students. In some cases, students are encouraged to ask how basic notions such as “inclusive” and “smart” could be applied to the topics in this course. Students of Japan and America are also asked to recognize different cultural appreciations of the shared topics, and to learn to incorporate other cultural perspectives in locating problems and in finding solutions.	【Registration 4/5-9/20】【 Limited to 200 students】 Lecture is conducted in English. Online(Asynchronous) This course is conducted in English. Limited to 200 students. Details will be posted on manaba.
1390111	Living in Japan as Foreign Students	1	1.0	1	FallAB	Fri3	1C305	Urano Edson Ioshiaqui,Ortolani Andrea	This course will provide clear explanations by using specific examples of legal and social rules foreign students must know for their lives in Japan. In particular, lectures will be focused on legal and administrative procedures required for studying, employment and settlement, by illustrating immigration control, the precautions for the limits of the non-academic activities regarding part-time jobs, visa application required for job hunting and job hunting after graduation, visa application required after the employment or in case of unemployment, marriage to a Japanese or a foreigner, and family life.	For students in Undergraduate Program of International Social Studies, auditor students and other international students CDP. face-to-face

Multidisciplinary Subjects for the Undergraduate Degrees (Upper Years Only)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
1490011	Topics in Social Sciences	1	1.0	3, 4	FallAB	Wed2	1B303	Moges Abu Girma	This course deals with advanced and contemporary topics in social sciences from the conceptual, practical, and public policy perspectives. The course will cover topics ranging from economic development, inequality and poverty, inter-and-intra national migration, political economics of public policies, sustainable development, and the prospects as well as the challenges of globalization.	Identical to 1E90011. Lecture is conducted in English. face-to-face

1490014	Inclusive Smart Society PBL	4	1.0	2, 3	FallAB	by request		Matsushima Takashi,Kameda Toshihiro,Yamamoto Kyosuke	This course is an international collaborative PBL (Project-Based Learning) subject with the theme of realizing the Inclusive Smart Society (ISS), involving students from Ohio State University (OSU) and the University of Tsukuba. Students from both universities will share ideas, form international teams, and work together to propose social startups aimed at realizing ISS. Participants are expected to understand the universal and regional elements of ISS, investigate and analyze various challenges, and construct practical solutions. Through this process, students can acquire practical approaches and methodologies for addressing real-world issues. It should be noted that completion of the courses “Introduction to Inclusive Smart Society I & II” is a prerequisite for taking this course.	【Registration 4/5-12/20】【 Limited to 100 students】 Lecture is conducted in English. Online(Asynchronous) This course is conducted in English. Limited to 100 students. Details will be posted on manaba. The 10th class will be conducted online(synchronous).
1490221	Mechatronics Basics and Applications	1	1.0	3, 4	FallABC	Fri3	3A213	Hassan Modar	In this course students will learn how to design and implement a mechatronics system including a) a controller, b) sensors, c) actuators, and d) an algorithm. The course is structured as follows: basic class unit, mid-term project, advanced class unit, end-term project. Students are organized in teams, and a project theme is given for each team. Evaluation is based on report and project presentation of each team. In addition to learning the structure, design, and analysis of mechatronics systems this course aims to nurture a “can do” attitude where students are willing to take challenges and design engineering solutions from scratch.	Identical to 1D90221. Lecture is conducted in English. Admission limit: up to 20 students. Priority is given to IDE Students. Identical to 1D90221. Lecture is conducted in English. face-to-face Admission limit: up to 20 students. Priority is given to IDE Students.

Established parent

Requirements
Multidisciplinary Subjects Curriculum ii

Multidisciplinary Subjects I

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
1190212	First Year Seminar	2	1.0	1	Sum Vac	Intensive		Ortolani Andrea	This course is designed to help students become familiar with the educational system and campus life at the University of Tsukuba. Important information regarding living in Japan as a foreign resident and a general introduction on Japanese society will also be provided.	For students in Undergraduate Program of International Social Studies. Lecture is conducted in English. face-to-face
1190222	First Year Seminar	2	1.0	1	Sum Vac	Intensive		Kuwayama Hidekazu, Wada Hiroshi, Irving Louis John, Ying Beiwen, Kang Seung Won, Yoshioka Yosuke, Parkner Thomas	This course is designed to help students become familiar with the educational system and campus life at the University of Tsukuba. Important information regarding living in Japan as a foreign resident and a general introduction on living in Tsukuba city will also be provided. Lecture is conducted in English. face-to face.	For students in Interdisciplinary Program in Life and Environmental Sciences Lecture is conducted in English. face-to-face
1190232	First Year Seminar	2	1.0	1	Sum Vac	Intensive	3B213	Islam Monirul Muhammad, Sharmin Sonia, Takeyasu Kotaro	This is a series of information sessions for Interdisciplinary Engineering students new to the University of Tsukuba. It includes an orientation seminar to help the students make their course plans and also facility visits on campus, such as a library, health center, cafeterias, and some selected Research Laboratories in the College of Engineering Sciences and that of Engineering Systems to become familiar with campus life.	Only for IDE students Lecture is conducted in English. face-to-face
1190312	First Year Seminar	2	1.0	1	FallAB	Thu2		Sandoval Felipe, Morio Takahiro	Students in Bachelor's Program in Global Issues will obtain various information to live a fruitful life.	Only for BPGI students. Lectures are conducted in English. Lecture is conducted in English. face-to-face
1290011	Learning and Ethics of Research	1	1.0	1	FallAB	Wed2	3A212	Kakeya Hideki, Dairaku Koji, Izawa Jun, Date Hisashi, Puentes Sandra Milena	This course introduces fundamental concepts related to learning and research activities in a university, from an ethics point of view. In particular, it includes the following topics: definition of science, research methodology, research misconduct, mentor and advisor, responsible authorship, peer review and publication, data management, collaborative research, conflict of interests, whistleblowing and obligation to protect the public.	Student number limit may apply. Priority is given to IDE Students. Lecture is conducted in English. face-to-face
1290021	OMOTENASHI —Japanese Culture and Manner—	1	1.0	1	FallAB	Thu3	5C301	Egami Izumi	・To understand Japanese culture, history, and etiquette. ・To learn about Japanese customs, traditions, and manners from the perspective of cross-cultural communication. ・To learn business etiquette in Japan based on an understanding of the principles of protocol (international etiquette).	The number of students is limited to 20. If the number of students exceeds the capacity, priority will be given to international students, mainly first-year students. The Lecture is conducted in English. face-to-face Lecture is conducted in English. face-to-face

1390111	Living in Japan as Foreign Students	1	1.0	1	FallAB	Fri3	1C305	Urano Edson Ioshiaqui,Ortolani Andrea	This course will provide clear explanations by using specific examples of legal and social rules foreign students must know for their lives in Japan. In particular, lectures will be focused on legal and administrative procedures required for studying, employment and settlement, by illustrating immigration control, the precautions for the limits of the non-academic activities regarding part-time jobs, visa application required for job hunting and job hunting after graduation, visa application required after the employment or in case of unemployment, marriage to a Japanese or a foreigner, and family life.	For students in Undergraduate Program of International Social Studies, auditor students and other international students CDP. face-to-face

Multidisciplinary Subjects III

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
1D90221	Mechatronics Basics and Applications	1	1.0	3, 4	FallABC	Fri3	3A213	Hassan Modar	In this course students will learn how to design and implement a mechatronics system including a) a controller, b) sensors, c) actuators, and d) an algorithm. The course is structured as follows: basic class unit, mid-term project, advanced class unit, end-term project. Students are organized in teams, and a project theme is given for each team. Evaluation is based on report and project presentation of each team. In addition to learning the structure, design, and analysis of mechatronics systems this course aims to nurture a “can do” attitude where students are willing to take challenges and design engineering solutions from scratch.	Identical to 1D90221. Lecture is conducted in English. Admission limit: up to 20 students. Priority is given to IDE Students. Identical to 1490221. Lecture is conducted in English. face-to-face Admission limit: up to 20 students. Priority is given to IDE Students.
1E90011	Topics in Social Sciences	1	1.0	3, 4	FallAB	Wed2	1B303	Moges Abu Girma	This course deals with advanced and contemporary topics in social sciences from the conceptual, practical, and public policy perspectives. The course will cover topics ranging from economic development, inequality and poverty, inter-and-intra national migration, political economics of public policies, sustainable development, and the prospects as well as the challenges of globalization.	Identical to 1490011. Lecture is conducted in English. face-to-face

Established parent

Requirements
Physical Education

For students in International Social Studies, Life and Enviromental Sciences, Medicine and Health Sciences, BPGI

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2107173	Basic Physical Education Karate	3	0.5	1	FallAB	Thu1	1st Multi-Purpose Dojo	Fumoto Masaki	The purpose of this class is to understand the relation between one's own mind and body, between one's opponent's mind and body, and their interaction, using basic Karate techniques. Basic Karate techniques, including suitable breathing methods, coordination of Karate basic techniques with footwork, and Kata (Karate form), will be taught in this class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2110133	Basic Physical Education Japanese Archery	3	0.5	1	FallAB	Thu1	Japanese Archery Training Hall	Matsuo Makinori	In this class you will be able to learn the basic of Kyudo. While shooting on short and middle distance you will have a chance to learn about safety rules, be able to shoot quite well, and experience other parts of Kyudo, like competition.	I elements by gender(equipment). G-course. Work Experience faculty. face-to-face
2115173	Basic Physical Education Judo	3	0.5	1	FallAB	Thu1	Judo Dojo	Okada Hirotaka	The purpose of this instruction is to learn fundamental skills of judo and to understand the fascination of judo through doing safety Randori with using some basic technique.	elements by gender(contact). elements by gender(other). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2117133	Basic Physical Education Swimming	3	0.5	1	FallAB	Thu1	Indoor Pool		The module aims to enjoy exercises in water together with various people. You learn 4 different swimming storkes, skin-diving and water polo through this module.	elements by gender(wear). elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2123173	Basic Physical Education Dance	3	0.5	1	FallAB	Thu1	Dance Hall	Yonezawa Mayuko	In this class, learns how to use basic body of the dance and gets on various music and move a body.In addition, aims at the making of healthy body by yoga and stretch through a class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2140153	Basic Physical Education Fitness Training	3	0.5	1	FallAB	Thu1	2nd Training Area	Matsuo Hirokazu	Emphasis will be on maintenance of good health and understanding of relationship between physical fitness and health promotion. Acquirement of methods of resistance training, jogging and stretching shall also be addressed for lifelong good health.	elements by gender(special rule/pair/team). G-course. Details will be annouced.. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2148173	Basic Physical Education Refresh Movements	3	0.5	1	FallAB	Thu1	Gymnastics Area	Hasegawa Kiyonao	In this lesson, you learn mind and body through gymnastics and acquire knowledge and fundamental exercise ability to enjoy sports with friends. Through this lesson ,we will cultivate a spirit of challenge by challenging the activities that have never experienced, such as "G-ball" ;giant-gymnastics ball and "Wheel gymnastics" ;gym wheels movement. The teacher who is Japanese national athlete in Wheel gymnastics will take classes by taking advantage of their experiences.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2152153	Basic Physical Education Track and Field	3	0.5	1	FallAB	Thu1	Athletic Field	Enomoto Yasushi	Learn knowledge and the method to improve fitness and skill as fundamental exercise of running, jumping and throwing in track and field, and also focusing an attitude to enjoy exercise depending on your own level. Promote understanding significance of wellness and fitness through practice.	elements by gender(equipment). elements by gender(special rule/pair/team). G-course. face-to-face There is a difference in grading skills for women and men.In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2121173	Basic Physical Education Softball	3	0.5	1	FallAB	Thu1	Baseball Field, Multipurpose Sports Ground	Kaneda Takeshi	Emphasis will be on fundamentals, and the way to enjoy playing game. Understanding and improvement of health and fitness shall also be addressed by playing softball.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2122153	Basic Physical Education Table Tennis	3	0.5	1	FallAB	Thu1	3rd Gymnasium	Nonaka Yuki	Learn the basic techniques of table tennis from its essence, while at the same time deepening the understanding of the movements applicable to different types of sports. Through various practice methods and minigames, learn also about relevant aspects of sports, such as communications and sportsmanship.	Indoor shoose should be brought without fail. Be sure to wear sportswear. Accept experienced students. However, the level of this class is targeted at beginners. elements by gender(contact). G-course. Work Experience faculty. face-to-face
2125173	Basic Physical Education Tennis	3	0.5	1	FallAB	Thu1	Taigei Tennis Hardcourts	Mituhashi Daisuke	Acquiring fundamental skills of tennis. Manner, rule, and values of sports shall also be learned through playing tennis.	It is preferable to wear tennis shoes. If you don't have them, wear athletic shoes (no leather shoes or sandals as they are dangerous). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2133173	Basic Physical Education New Sports	3	0.5	1	FallAB	Thu1	1st Soccer Field	Nagata Shinichi	Students will engage in New Sports, which refer to organized activities that are different from existing sports and have different pholosophies from traditional sports. Through some samples of New Sports, including Bocce Ball, Indiaca, and Unihoc floorball, students will gain baskic skills and knowledge to make their life-long active living. The planned activities might be changed in case of inclement weathers (rain, temperature, etc.).	Those who were absent more than 1/3 of the class will not be considered for the credit of this class elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2135153	Basic Physical Education Badminton	3	0.5	1	FallAB	Thu1	1st Gymnasium	Suita Masashi	Learning of Badminton skills.	elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class. Teaching assistants may not be available and require you to actively communicate in English and Japanese.
2136193	Basic Physical Education Volleyball	3	0.5	1	FallAB	Thu1	Volleyball Gymnasium	Akiyama Nakaba	This course is designed to learn fundamental skills (pass, serve, game play), rules, and team work.	II elements by gender(special rule/pair/team). G-course. face-to-face
2137133	Basic Physical Education Handball	3	0.5	1	FallAB	Thu1	Handball Field	Yamada Eiko	Learn a way of the situation solution in individuals, and the group. In addition, develop ability for coordination, through various movements with ball.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2141133	Basic Physical Education Flag Football	3	0.5	1	FallAB	Thu1	SEKISHO Field	Matsumoto Tsuyoshi	Through a modified game from flag football, we learn a basic skill and tactics. Furthermore, we deepen understanding about the communication and leadership for team activity.	elements by gender(special rule/pair/team). G-course. face-to-face Mixed gender teams will be created so that each team has an equal number of men and women. In games, we will set special rules and devise ways to ensure that everyone is actively involved in the game. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2143173	Basic Physical Education Bodywork	3	0.5	1	FallAB	Thu1	2nd Multi-Purpose Dojo	Kato Toshihiro	We will do the following exercises. (1) Core Training (2) Stretching (3) Self-massage (4) Breathing technique Sharpen your senses. Increases resistance to stress. And enjoy the exercise itself.	G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2130173	Basic Physical Education Trim Exercise	3	0.5	1	FallAB	Thu1	トリム室	Sakamoto Akihiro	In this couse, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim Exercise room in Physical Education Center 1F G-course. Work Experience faculty. face-to-face

Wellness Sports

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2505373	Wellness Sports	3	0.5	1	FallC	Intensive		Tanigawa Satoru	The aim of this course is to provide students with basic knowledge and skills about exercise and sports from many viewpoints. This will enable students to independently improve their health and physical fitness and enjoy sports throughout life.	For G30 students, and new students who entered for fall semester. 1/27,1/28,2/3 elements by gender(special rule/pair/team). G-course. Details will be annouced.. face-to-face Be sure to attend an orientation.

For students in Life and Enviromental Sciences, BPGI

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2211203	Applied Physical Education Kendo	3	0.5	2	SprAB	Fri2	Kendo Dojo	Nabeyama Takahiro	To begin practicing with Kendo armor also known as bogu to basic fundamental level, as well as learning Kendo etiquette to improve ones mind and body.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2213243	Applied Physical Education Soccer	3	0.5	2	SprAB	Fri2	1st Soccer Field	Koido Masaaki	Understand the fundamentals of football skills / tactics. Also, learn what kind of scene of the game it is effective to use them, and realize the enjoyment of the game more.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214203	Applied Physical Education Shooting Sports	3	0.5	2	SprAB	Fri2	Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2215223	Applied Physical Education Judo	3	0.5	2	SprAB	Fri2	Judo Dojo	Hiraoka Hiroaki	understanding the princeple of the Judo techniques and lean the martial arts through experience.	elements by gender(contact). elements by gender(other). G-course. face-to-face You can wear a shirt under the judo suit when you play judo. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2216263	Applied Physical Education Jog and walk	3	0.5	2	SprAB	Fri2	Athletic Field	Enomoto Yasushi	You can get knowledge and experience for life span physical literacy through evidence based jogging and walking. First task would be appropriate activity for your physical fitness and condition, second task would be consideration of making your own design and plan for health and physical promotion, and third task would be understanding your mind and attitude for enjoying jogging and walking.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face Need running shoes In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2217263	Applied Physical Education Swimming	3	0.5	2	SprAB	Fri2	Indoor Pool	Tsunokawa Takaaki	The students will take advantage of the characteristics of the University's swimming pool facilities to engage in a variety of water-based activities. In particular, during the spring term, students will learn basic water polo skills and acquire knowledge of self-preservation in the water.	elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2221263	Applied Physical Education Softball	3	0.5	2	SprAB	Fri2	Baseball Field, Multipurpose Sports Ground	Nara Takaaki	Through softball practice and our regular season games, we will develop our ability to work in a team and overcome challenges together. We will primarily focus on preparation and defensive practice for the first half of the semester, and will enter the regular season in the second half of the semester.	elements by gender(special rule/pair/team). G-course. face-to-face
2222223	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Fri2	3rd Gymnasium	Ando Shintaro	To deepen students' knowledge of sports activities. Through unique exercises, students will gain an understanding of the techniques involved in various sporting situations by pursuing a single discipline in greater depth. Students will also engage in applied mini-games.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2230223	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Fri2	トリム室	Nagata Shinichi	This course accepts students who need special assistantce in physical education class. This course aims to introduce sports that can be played in a variety of ways. Depending on the collective status of the enrolled students, the course contents may be modified.	Trim exercise room Those who were absent more than 1/3 of the class will not be considered for the credit of this class G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2233203	Applied Physical Education New Sports	3	0.5	2	SprAB	Fri2	体育センター周辺	Saito Taketoshi	"New sports" subjects are not to implement major sports, but to experience various sports events. For example,Flying Disc,Warking, Indiaca, G-ball,Ground Golf,Petanque, Long jump rope , and so on.	Classroom will be announced later. G-course. Details will be annouced.. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2234263	Applied Physical Education Basketball	3	0.5	2	SprAB	Fri2	Basketball Courts	Moriya Shiho	Acquiring fundamentals, understanding offense and defense principles and team play from both playing and coaching perspective. Health, fitness, and skills of jumping, running, and throwing shall also be enhanced for enjoyable lifetime by playing basketball.	elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2237223	Applied Physical Education Handball	3	0.5	2	SprAB	Fri2	Handball Field	Yamada Eiko	Through understanding of a handball game and acquiring group/team tactics, your relationship skills/ thinking skills in the team and your ability to enjoy team sports are cultivated.	elements by gender(special rule/pair/team). G-course. Available for students related to a cooperation system. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2240263	Applied Physical Education Fitness Training	3	0.5	2	SprAB	Fri2	2nd Training Area	Kawai Toshinobu	Understand the significance of health and physical fitness, and do training with a combination of resistance training and aerobic exercise.	G-course. Work Experience faculty. face-to-face
2241263	Applied Physical Education Flag Football	3	0.5	2	SprAB	Fri2	SEKISHO Field	Matsuo Hirokazu	We understand the tactical knowledge and skill of flag football through a passing game and learn the strategy depending on the situation of the team practically.	G-course. Details will be annouced.. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2245223	Applied Physical Education Outing Sports	3	0.5	2	SprAB	Fri2	Practice Field for Outdoor Activities	Sakamoto Akihiro	The goals of this class are 1)to acquire the basic skills for outdoor group activity: initiative games, 2)to understand the knowledge of that, 3)to acquire the ability of problem solving, and to gain the insight for self, other and natural environment through the outdoor activity. The class of Spring AB is held in the Yasei no Mori.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2248263	Applied Physical Education Refresh Movements	3	0.5	2	SprAB	Fri2	Gymnastics Area	Kano Rina	Through pleasant exercise and interaction with peers, the program fosters a rich mind and knowledge of the enjoyment of sports.They also refresh their minds and bodies through exposure to unusual physical activities such as "G-ball," which they can ride, and "Wheel Gymnastics" , in which they spin inside a large iron ring.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face Short-term international students who wish to take a class must, in principle, contact the instructor in charge of the class at least three days prior to the first class and obtain permission to take the class.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2211213	Applied Physical Education Kendo	3	0.5	2	FallAB	Fri2	Kendo Dojo	Nabeyama Takahiro	To wear the Kendo armor or bogu, being able to perform techniques where you strike based on your opponents reaction and to become in sync with your opponent to improve the mind and body.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2213253	Applied Physical Education Soccer	3	0.5	2	FallAB	Fri2	1st Soccer Field	Koido Masaaki	In addition to the technique of handling the ball itself, understand the movement when not holding a ball. Improve the ability to enjoy haggling with opponents in the game.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214213	Applied Physical Education Shooting Sports	3	0.5	2	FallAB	Fri2	Japanese Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2215233	Applied Physical Education Judo	3	0.5	2	FallAB	Fri2	Judo Dojo	Hiraoka Hiroaki	understanding the princeple of the Judo techniques and lean the martial arts through experience.	elements by gender(contact). elements by gender(other). G-course. face-to-face You can wear a shirt under the judo suit when you play judo.
2216273	Applied Physical Education Jog and walk	3	0.5	2	FallAB	Fri2	Athletic Field	Enomoto Yasushi	You learn advanced physical literacy for jogging and walking based on scientific understanding through the activities in variety of time, distance, and terrain. The goal is set for getting the ability and understanding to jog and walk for yourself subjectively.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face Need running shoes In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2217273	Applied Physical Education Swimming	3	0.5	2	FallAB	Fri2	Indoor Pool	Tsunokawa Takaaki	Understanding and improving self health and fitness with swimming. Various types of water sports will be achieved, swimming, water polo, diving, skin diving, synchronized swimming, and swim with clothes on.	elements by gender(wear). elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2221273	Applied Physical Education Softball	3	0.5	2	FallAB	Fri2	Baseball Field, Multipurpose Sports Ground	Nara Takaaki	We will deepen our understanding of softball techniques and strategies, and hone our skills so that we may succeed on the playing field. Both in practice and regular season games, we will learn teamwork, cooperation and leadership.	elements by gender(special rule/pair/team). G-course. face-to-face
2222233	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Fri2	3rd Gymnasium	Ando Shintaro	Along with the deepening of knowledge on sports or time, it enhances the ability to enjoy the results of activities. After understanding techniques related to various sports scenes, practice in a variety of forms together with games and technical exercises, and develop a free idea about game sports.	elements by gender(contact). Work Experience faculty. face-to-face
2230233	Applied Physical Education Trim Exercise	3	0.5	2	FallAB	Fri2	トリム室	Nagata Shinichi	This course accepts students who need special assistantce in physical education class. This course aims to introduce sports that can be played in a variety of ways. Depending on the collective status of the enrolled students, the course contents may be modified.	Trim exercise room Those who were absent more than 1/3 of the class will not be considered for the credit of this class G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2233213	Applied Physical Education New Sports	3	0.5	2	FallAB	Fri2	体育センター周辺	Saito Taketoshi	"New sports" subjects are not to implement major sports, but to experience various sports events. Various sports events are Flying Disc, G-ball,Ground Golf,Petanque,Universal-hockey, Bound Tennis, Double Dutch,Kin-Ball,etc. and so on.	Classroom will be announced later. G-course. Details will be annouced.. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2234273	Applied Physical Education Basketball	3	0.5	2	FallAB	Fri2	Basketball Courts	Moriya Shiho	Acquiring fundamentals, understanding offense and defense principles and team play from both playing and coaching perspective. Health, fitness, and skills of jumping, running, and throwing shall also be enhanced for enjoyable lifetime by playing basketball.	elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2237233	Applied Physical Education Handball	3	0.5	2	FallAB	Fri2	Handball Field	Yamada Eiko	Acquiring fundamental skills and tactics of handball. Learning team work through mini games and handball games.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2240273	Applied Physical Education Fitness Training	3	0.5	2	FallAB	Fri2	2nd Training Area	Kawai Toshinobu	Understand the significance of health and physical fitness, and do training with a combination of resistance training and aerobic exercise.	G-course. Work Experience faculty. face-to-face
2241273	Applied Physical Education Flag Football	3	0.5	2	FallAB	Fri2	SEKISHO Field	Matsuo Hirokazu	Through flag football games, students will improve their tactical knowledge and skills related to flag football and improve their game performance.	G-course. Details will be annouced.. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2245233	Applied Physical Education Outing Sports	3	0.5	2	FallAB	Fri2	Practice Field for Outdoor Activities	Sakamoto Akihiro	In the fall semester, students will learn practical camping skills (fire making, outdoor cooking (lunch making), rope work, tarp tent setup, etc.) and actually experience day camping. The schedule is the morning of Wednesday, November 27 (regular classes will be cancelled due to the TOEIC exam for third-year students on that day). Therefore, the number of class hours will be adjusted.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2248273	Applied Physical Education Refresh Movements	3	0.5	2	FallAB	Fri2	Gymnastics Area	Kano Rina	Through pleasant exercise and interaction with peers, the program fosters a rich mind and knowledge of the enjoyment of sports.They also refresh their minds and bodies through exposure to unusual physical activities such as "G-ball," which they can ride, and "Wheel Gymnastics", in which they spin inside a large iron ring.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face Short-term international students who wish to take a class must, in principle, contact the instructor in charge of the class at least three days prior to the first class and obtain permission to take the class.

For students in International Social Studies

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2207243	Applied Physical Education Karate	3	0.5	2	SprAB	Thu2	1st Multi-Purpose Dojo	Fumoto Masaki	The purpose of this class is to understand the relation between one's own mind and body, between one's opponent's mind and body, and their interaction, using basic Karate techniques. Basic Karate techniques, including suitable breathing methods, coordination of Karate basic techniques with footwork, Kata, and Kumite will be taught in this class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2211243	Applied Physical Education Kendo	3	0.5	2	SprAB	Thu2	Kendo Dojo	Nabeyama Takahiro	The aim is to develop mind and body through basic practice with equipment up to sparring level, and through practice of etiquette.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214243	Applied Physical Education Shooting Sports	3	0.5	2	SprAB	Thu2	Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2217223	Applied Physical Education Swimming	3	0.5	2	SprAB	Thu2	Indoor Pool		Understanding swimming techniques and improving swimming skills. Learning various auqtic skills like basic swimming, Japanese traditional swimming, artisticswimming, water polo, life saving and snorkeling etc.	elements by gender(wear). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2221243	Applied Physical Education Softball	3	0.5	2	SprAB	Thu2	Baseball Field, Multipurpose Sports Ground	Kaneda Takeshi	Emphasis will be on fundamentals, and the way to enjoy playing game. Understanding and improvement of health and fitness shall also be addressed by playing softball.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2222203	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Thu2	3rd Gymnasium	Nonaka Yuki	Deepen your knowledge of sports activities through table tennis. By using a unique practice method to deepen the pursuit of one type of sports, the students will understand the techniques related to various types of sports. Practice mini games as well.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2223243	Applied Physical Education Dance	3	0.5	2	SprAB	Thu2	Dance Hall	Yonezawa Mayuko	In this class, learns how to use basic body of the dance and gets on various music and move a body.In addition, aims at the making of healthy body by yoga and stretch through a class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2225263	Applied Physical Education Tennis	3	0.5	2	SprAB	Thu2	Taigei Tennis Hardcourts	Maezawa Kaoru	Comprehensively learn knowledge and skills regarding tennis such as rules, manners, basic skills to enjoy playing tennis as a lifelong sport. Learning contents mainly consisted of doubles play.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2230243	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Thu2	トリム室	Sakamoto Akihiro	In this couse, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim exercise room on the 1st floor of the physical education center In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class G-course. Work Experience faculty. face-to-face
2235203	Applied Physical Education Badminton	3	0.5	2	SprAB	Thu2	1st Gymnasium	Tanifuji Chika	Understanding the principles of badminton in order to play and enjoy games. History, manner, rule, and values of sports shall also be learned through playing games.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2236243	Applied Physical Education Volleyball	3	0.5	2	SprAB	Thu2	Volleyball Gymnasium	Akiyama Nakaba	This course is designed to learn fundamental skills (pass, serve, spike, block, game play), rules, basic strategies, and team work.	elements by gender(special rule/pair/team). G-course. face-to-face
2241223	Applied Physical Education Flag Football	3	0.5	2	SprAB	Thu2	SEKISHO Field	Matsumoto Tsuyoshi	We understand the tactical knowledge and skill of flag football through a passing game and learn the strategy depending on the situation of the team practically.	elements by gender(special rule/pair/team). G-course. face-to-face Mixed gender teams will be created so that each team has an equal number of men and women. Special rules will be set for games to ensure that everyone is actively involved in the game. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2243243	Applied Physical Education Bodywork	3	0.5	2	SprAB	Thu2	2nd Multi-Purpose Dojo	Kato Toshihiro	We will do the following exercises. (1) Core Training (2) Stretching (3) Self-massage (4) Breathing technique. Sharpen your senses. Increases resistance to stress. And enjoy the exercise itself.	elements by gender(contact). G-course. face-to-face Pair work (assisting with training, sports massage, etc.) may be done regardless of gender. If you are not comfortable with pair work, you can do it alone. Pairs can be formed in any way. If there is an odd number of participants, there may be a group of three. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2248243	Applied Physical Education Refresh Movements	3	0.5	2	SprAB	Thu2	Gymnastics Area	Hasegawa Kiyonao	Exercise bouncing in the Swiss ball.Exercise to rotation by the wheel gymnastics. Through a new experience, to refresh the mind and body.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2207253	Applied Physical Education Karate	3	0.5	2	FallAB	Thu2	1st Multi-Purpose Dojo	Fumoto Masaki	The purpose of this class is to understand the relation between one's own mind and body, between one's opponent's mind and body, and their interaction, using basic Karate techniques. Basic Karate techniques, including suitable breathing methods, coordination of Karate basic techniques with footwork, Kata, and Kumite will be taught in this class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2211253	Applied Physical Education Kendo	3	0.5	2	FallAB	Thu2	Kendo Dojo	Nabeyama Takahiro	The aim is to develop sparring skills with a partner with full kendo equipment, and furthermore to develop the mind and body.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214253	Applied Physical Education Shooting Sports	3	0.5	2	FallAB	Thu2	Japanese Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2217233	Applied Physical Education Swimming	3	0.5	2	FallAB	Thu2	Indoor Pool		Understanding swimming techniques and improving swimming skills. Learning various auqtic skills like basic swimming, Japanese traditional swimming, synchronised swimming, water polo, life saving and snorkeling etc.	elements by gender(wear). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face
2221253	Applied Physical Education Softball	3	0.5	2	FallAB	Thu2	Baseball Field, Multipurpose Sports Ground	Kaneda Takeshi	Emphasis will be on fundamentals, and the way to enjoy playing game. Understanding and improvement of health and fitness shall also be addressed by playing softball.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2222213	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Thu2	3rd Gymnasium	Nonaka Yuki	Upon deepening knowledge concerning sports activities and understanding techniques applicable to different types of sports, apply the acquired knowledge and skills to games and technical practices and develop free thinking on sports activities.	elements by gender(contact). G-course. Work Experience faculty. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2223253	Applied Physical Education Dance	3	0.5	2	FallAB	Thu2	Dance Hall	Yonezawa Mayuko	In this class, learns how to use basic body of the dance and gets on various music and move a body. In addition, aims at the making of healthy body by yoga and stretch through a class.	elements by gender(contact). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2225273	Applied Physical Education Tennis	3	0.5	2	FallAB	Thu2	Taigei Tennis Hardcourts	Maezawa Kaoru	Comprehensively learn knowledge and skills regarding tennis such as rules, manners, basic skills to enjoy playing tennis as a lifelong sport. Learning contents mainly consisted of doubles play.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2230253	Applied Physical Education Trim Exercise	3	0.5	2	FallAB	Thu2	トリム室	Sakamoto Akihiro	In this couse, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim exercise room on the 1st floor of the physical education center G-course. Work Experience faculty. face-to-face
2235213	Applied Physical Education Badminton	3	0.5	2	FallAB	Thu2	1st Gymnasium	Tanifuji Chika	Learning of Badminton skills	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2236253	Applied Physical Education Volleyball	3	0.5	2	FallAB	Thu2	Volleyball Gymnasium	Akiyama Nakaba	This course is designed to learn fundamental skills (pass, serve, spike, block, game play), rules, basic strategies, and team work.	elements by gender(special rule/pair/team). G-course. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2241233	Applied Physical Education Flag Football	3	0.5	2	FallAB	Thu2	SEKISHO Field	Matsumoto Tsuyoshi	Emphasis is on further tactical/positional patterns and consideration for team shape/formations. Larger playing areas are gradually introduced, and as before, students take part in game formats on a regular basis.	elements by gender(special rule/pair/team). G-course. face-to-face Mixed gender teams will be created so that each team has an equal number of men and women. Special rules will be set for games to ensure that everyone is actively involved in the game. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2243253	Applied Physical Education Bodywork	3	0.5	2	FallAB	Thu2	2nd Multi-Purpose Dojo	Kato Toshihiro	We will do the following exercises. (1) Core training (2) Stretching (3) Breathing technique (4) Bosy axis training. Sharpen your senses. Increases resistance to stress while communicating with others. And enjoy the exercise itself.	elements by gender(contact). G-course. face-to-face Pair work (assisting with training, sports massage, etc.) may be done regardless of gender. If you are not comfortable with pair work, you can do it alone. Pairs can be formed in any way. If there is an odd number of participants, there may be a group of three. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2248253	Applied Physical Education Refresh Movements	3	0.5	2	FallAB	Thu2	Gymnastics Area	Hasegawa Kiyonao	Exercise bouncing in the Swiss ball.Exercise to rotation by the wheel gymnastics. Through a new experience, to refresh the mind and body.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

For students in International Social Studies, Medicine and Health Sciences, IDE

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2211263	Applied Physical Education Kendo	3	0.5	2	SprAB	Thu3	Kendo Dojo	Nabeyama Takahiro	To begin practicing with Kendo armor also known as bogu to basic fundamental level, as well as learning Kendo etiquette to improve ones mind and body.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2212243	Applied Physical Education Golf	3	0.5	2	SprAB	Thu3	Golf Cages	Shiraki Hitoshi	In this course, students will learn about Golf Swing,History,manner, etiquett,rule,history and sportsman ship.Recognize your physical fitness by performing physical fitness measurement.	Expenses: Golf Driving Range / ¥1300, Golf Course / ¥3500 G-course. face-to-face Clubs are asked to select clubs for their height.
2213263	Applied Physical Education Soccer	3	0.5	2	SprAB	Thu3	1st Soccer Field	Naruse Kazuya	The purpose of this class is to cultivate football cultural elements. Acquire principles of offense and defense and basic skills through various game formats football .	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214263	Applied Physical Education Shooting Sports	3	0.5	2	SprAB	Thu3	Japanese Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2215263	Applied Physical Education Judo	3	0.5	2	SprAB	Thu3	Judo Dojo	Matsui Takashi	Understanding the princeple of the Judo techniques and lean the martial arts through experience.	I elements by gender(contact). elements by gender(other). G-course. face-to-face T-shirts may be worn under the Judo-wear. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2217243	Applied Physical Education Swimming	3	0.5	2	SprAB	Thu3	Indoor Pool	Sakaue Hiroyuki	Understanding swimming techniques and improving swimming skills. Learning various aquatic skills like basic swimming, water polo, artistic swimming, Diving, life saving and skin diving etc.	elements by gender(wear). elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2221223	Applied Physical Education Softball	3	0.5	2	SprAB	Thu3	Baseball Field, Multipurpose Sports Ground	Nara Takaaki	Through softball practice and our regular season games, we will develop our ability to work in a team and overcome challenges together. We will primarily focus on preparation and defensive practice for the first half of the semester, and will enter the regular season in the second half of the semester.	elements by gender(special rule/pair/team). G-course. face-to-face
2222243	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Thu3	3rd Gymnasium	Ando Shintaro	To deepen students' knowledge of sports activities. Through unique exercises, students will gain an understanding of the techniques involved in various sporting situations by pursuing a single discipline in greater depth. Students will also engage in applied mini-games.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2223263	Applied Physical Education Dance	3	0.5	2	SprAB	Thu3	Dance Hall	Hirayama Motoko	"Discovery of your body" as the theme. An individual invention ability and the sensibility are polished by touching various dance cultures. Beautiful posture and the necessity of a healthy body making are understood while introducing the base of the yoga.	elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2225203	Applied Physical Education Tennis	3	0.5	2	SprAB	Thu3	Taigei Tennis Hardcourts	Maezawa Kaoru	Comprehensively learn knowledge and skills regarding tennis such as rules, manners, basic skills to enjoy playing tennis as a lifelong sport. Learning contents mainly consisted of doubles play.	elements by gender(special rule/pair/team). G-course. face-to-face
2230263	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Thu3	トリム室	Saito Mayumi	In this couse, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim action room G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2233223	Applied Physical Education New Sports	3	0.5	2	SprAB	Thu3	SEKISHO Field	Nagata Shinichi	"New sports" subjects are not to implement major sports, but to experience various sports events. Various sports events are Flying Disc, G-ball,Ground Golf,Petanque,Universal-hockey, Bound Tennis, Double Dutch,Kin-Ball,etc. and so on.	Classroom will be announced later. elements by gender(contact). G-course. Details will be annouced.. face-to-face
2234243	Applied Physical Education Basketball	3	0.5	2	SprAB	Thu3	Basketball Courts	Sakamoto Takuya	Understanding the characteristics of basketball, acquirement of individual tactics (break opponent, take ball from opponent). Acquirement how to utilize technical and tactical fundamentals in games.	elements by gender(equipment). elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2235263	Applied Physical Education Badminton	3	0.5	2	SprAB	Thu3	1st Gymnasium	Tanifuji Chika	Understanding the principles of badminton in order to play and enjoy games. History, manner, rule, and values of sports shall also be learned through playing games.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2237243	Applied Physical Education Handball	3	0.5	2	SprAB	Thu3	Handball Field	Fujimoto Miyuki	Acquire fundamental skills through games.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2240203	Applied Physical Education Fitness Training	3	0.5	2	SprAB	Thu3	2nd Training Area	Tanigawa Satoru	Understanding the relationship among maintaining and promoting physical, mental health and exercise and physical fitness, this class focus on applying exercises, resistance training, jogging, stretching to daily life as sports culture.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2211273	Applied Physical Education Kendo	3	0.5	2	FallAB	Thu3	Kendo Dojo	Nabeyama Takahiro	To wear the Kendo armor or bogu, being able to perform techniques where you strike based on your opponents reaction and to become in sync with your opponent to improve the mind and body.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2212253	Applied Physical Education Golf	3	0.5	2	FallAB	Thu3	Golf Cages	Shiraki Hitoshi	In this course, students will learn about Golf Swing, History, manner, etiquette, rule, history and sportsman ship.Practical practice at a nearby golf course in the fall semester	Expenses: Golf Driving Range / ¥1300, Golf Course / ¥3500 G-course. face-to-face Clubs are asked to select clubs for their height.
2213273	Applied Physical Education Soccer	3	0.5	2	FallAB	Thu3	1st Soccer Field	Naruse Kazuya	The purpose of this class is to understand the depth of football culture. It is also to learn basic tactics through various games.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2214273	Applied Physical Education Shooting Sports	3	0.5	2	FallAB	Thu3	Japanese Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (japanease traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2215273	Applied Physical Education Judo	3	0.5	2	FallAB	Thu3	Judo Dojo	Matsui Takashi	understanding the princeple of the Judo techniques and lean the martial arts through experience.	I elements by gender(contact). elements by gender(other). G-course. face-to-face T-shirts may be worn under the Judo-wear. In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2217253	Applied Physical Education Swimming	3	0.5	2	FallAB	Thu3	Indoor Pool	Sakaue Hiroyuki	Understanding swimming techniques and improving swimming skills. Learning various aquatic skills like basic swimming, water polo, artistic swimming, Diving, life saving and skin diving etc.	elements by gender(wear). elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2221233	Applied Physical Education Softball	3	0.5	2	FallAB	Thu3	Baseball Field, Multipurpose Sports Ground	Nara Takaaki	We will deepen our understanding of softball techniques and strategies, and hone our skills so that we may succeed on the playing field. Both in practice and regular season games, we will learn teamwork, cooperation and leadership.	elements by gender(special rule/pair/team). G-course. face-to-face
2222253	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Thu3	3rd Gymnasium	Ando Shintaro	Along with the deepening of knowledge on sports or time, it enhances the ability to enjoy the results of activities. After understanding techniques related to various sports scenes, practice in a variety of forms together with games and technical exercises, and develop a free idea about game sports.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2223273	Applied Physical Education Dance	3	0.5	2	FallAB	Thu3	Dance Hall	Hirayama Motoko	”Discovery of your body” as the theme. An individual invention ability and the sensibility are polished by touching various dance cultures. Beautiful posture and the necessity of a healthy body making are understood while introducing the base of the yoga.	elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2225213	Applied Physical Education Tennis	3	0.5	2	FallAB	Thu3	Taigei Tennis Hardcourts	Maezawa Kaoru	Comprehensively learn knowledge and skills regarding tennis such as rules, manners, basic skills to enjoy playing tennis as a lifelong sport. Learning contents mainly consisted of doubles play.	elements by gender(special rule/pair/team). G-course. face-to-face
2230273	Applied Physical Education Trim Exercise	3	0.5	2	FallAB	Thu3	トリム室	Saito Mayumi	In this couse, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim action room G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2233233	Applied Physical Education New Sports	3	0.5	2	FallAB	Thu3	SEKISHO Field	Nagata Shinichi	"New sports" subjects are not to implement major sports, but to experience various sports events. Various sports events are Flying Disc, G-ball,Ground Golf,Petanque,Universal-hockey, Bound Tennis, Double Dutch,Kin-Ball,etc. and so on.	As a general rule, credits are awarded to students who have attended at least two-thirds of the hours in the relevant class. elements by gender(contact). G-course. face-to-face
2234253	Applied Physical Education Basketball	3	0.5	2	FallAB	Thu3	Basketball Courts	Sakamoto Takuya	Understanding the characteristics of basketball, acquirement of Individual tactics and group tactics(cut play, screen play). Acquirement how to utilize technical and tactical fundamentals, and group tactics.	elements by gender(equipment). elements by gender(contact). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2235273	Applied Physical Education Badminton	3	0.5	2	FallAB	Thu3	1st Gymnasium	Tanifuji Chika	Learning of Badminton skills	elements by gender(special rule/pair/team). G-course. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class
2237253	Applied Physical Education Handball	3	0.5	2	FallAB	Thu3	Handball Field	Fujimoto Miyuki	Think about individual roles in the team Ando acquire the ability to enjoy team sports.	elements by gender(equipment). elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2240213	Applied Physical Education Fitness Training	3	0.5	2	FallAB	Thu3	2nd Training Area	Tanigawa Satoru	Understanding the relationship among maintaining and promoting physical, mental health and exercise and physical fitness, this class focus on applying exercises, resistance training, jogging, stretching to daily life as sports culture.	elements by gender(contact). elements by gender(special rule/pair/team). G-course. Work Experience faculty. face-to-face In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least three days prior to the first class and obtain permission to take the class

For students in IDE

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
2314283	Advanced Physical Education Shooting Sports	3	1.0	3	SprAB SprC	Mon4 Intensive	Japanese Archery Training Hall,Archery Training Hall	Saga Hitoshi	To know self-condition of physical fitness and mental health with the individual or group activities on Archery and Kyudo (Japanese traditional style of bow shooting), and also to accept the various values of sport or its cultural aspects.	elements by gender(special rule/pair/team). G-course. Details will be annouced.. face-to-face 集中日程はシラバスにて確認すること。
2317283	Advanced Physical Education Swimming	3	0.5	3	SprAB	Mon4	Indoor Pool	Togashi Taiichi	泳ぎを科学的に理解し、スキンダイビング、飛板飛込の基本スキルを学ぶ。生涯スポーツとしてアクアティックスポーツを楽しむ能力を高める。	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2321283	Advanced Physical Education Softball	3	0.5	3	SprAB	Mon4	Baseball Field, Multipurpose Sports Ground	Kiuchi Atsushi	授業時間内におけるソフトボールの実践では、誰もが全力で接戦を楽しめるゲームづくりをめざす。また，授業時間外の日常生活課題を通して，セルフケア能力の向上をめざす。	elements by gender(special rule/pair/team). G-course. face-to-face
2322283	Advanced Physical Education Table Tennis	3	0.5	3	SprAB	Mon4	3rd Gymnasium	Nonaka Yuki	In addition to learning the essence of table tennis techniques, students will deepen their knowledge of sports activities as they progress. Students will also learn about their own sports life and sports culture through practical skills.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2323283	Advanced Physical Education Dance	3	0.5	3	SprAB	Mon4	Dance Hall	Zushi Miwa	Challenge various dances, understand their movements, and aim to improve their skills. In addition, improve self-expression and sensitivity, and develop practical skills to lead a rich life through dance in life.	elements by gender(contact). G-course. face-to-face
2330283	Advanced Physical Education Trim Exercise	3	0.5	3	SprAB	Mon4	トリム室	Fukuda Takashi	In this course, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim exercise room at 1st floor of the PE center G-course. face-to-face
2333303	Advanced Physical Education New Sports	3	0.5	3	SprAB	Mon4	1st Soccer Field	Hato Kenta	既存のスポーツ競技や種目にとらわれることなく、子どもからお年寄りまで「誰でも楽しめるスポーツ」として普及してきたニュースポーツの実践を通して、運動の得意・不得意に関わらず、自分自身の体力に応じた「新たなスポーツ」を楽しむ方策などを見つけ出し、スポーツそのものに対する自分の価値観について考える.	当日の実施場所や教室は、天候等によって変更になるために、決定後周知 elements by gender(contact). G-course. Details will be annouced.. face-to-face
2340283	Advanced Physical Education Fitness Training	3	0.5	3	SprAB	Mon4	SEKISHO Field	Masegi Seiya	Through aerobic exercise and strength exercises targeting the core, students will experience feeling, thinking, and challenging to improve their physical ability.	elements by gender(special rule/pair/team). G-course. face-to-face
2317293	Advanced Physical Education Swimming	3	0.5	3	FallAB	Mon4	Indoor Pool	Togashi Taiichi	泳ぎを科学的に理解し、個々の泳能力に応じて4泳法のスキル向上を図る。水球 、アーティスティックスイミング、着衣泳、救助法の基本スキルを学び、自己保全能力を身につけ、生涯スポーツとしてアクアティックスポーツを楽しむ能力を高める。	elements by gender(contact). elements by gender(special rule/pair/team). G-course. face-to-face
2321293	Advanced Physical Education Softball	3	0.5	3	FallAB	Mon4	Baseball Field, Multipurpose Sports Ground	Kiuchi Atsushi	授業時間内におけるソフトボールの実践では、「よき戦い」を通じた社会人基礎力の向上をめざす。また，歩数モニタリング課題を通じて，日々の生活における歩数の2千歩増加をめざす。	elements by gender(special rule/pair/team). G-course. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
2322293	Advanced Physical Education Table Tennis	3	0.5	3	FallAB	Mon4	3rd Gymnasium	Nonaka Yuki	In addition to learning the essence of table tennis techniques, students will deepen their knowledge of sports activities as they progress. Students will also learn about their own sports life and sports culture through practical skills, and develop free ideas about sports.	elements by gender(contact). G-course. Work Experience faculty. face-to-face
2323293	Advanced Physical Education Dance	3	0.5	3	FallAB	Mon4	Dance Hall	Zushi Miwa	Challenge various dances, understand their movements, and aim to improve their skills. In addition, improve self-expression and sensitivity, and develop practical skills to lead a rich life through dance in life.	elements by gender(contact). G-course. face-to-face
2329293	Advanced Physical Education Track and Field	3	1.0	3	FallAB FallC	Mon4 Intensive	Athletic Field	Tanigawa Satoru	Understand the basic skills of running, jumping, and throwing so that you can understand them with your own body, learn how to manipulate your individual body, and learn training methods to improve your performance.	1 credit together with the intensive course. Intensive classes will be held during the fall semester with 5days morning practice and climbing Mt.Tsukuba. elements by gender(contact). elements by gender(special rule/pair/team). G-course. Details will be annouced.. Work Experience faculty. face-to-face
2330293	Advanced Physical Education Trim Exercise	3	0.5	3	FallAB	Mon4	トリム室	Fukuda Takashi	In this course, course instructor provides some physical activities which every students can enjoy and develop on your health. Students will be expected to have management skills between physical and mental health.	Trim exercise room at 1st floor of the PE center G-course. face-to-face
2333313	Advanced Physical Education New Sports	3	0.5	3	FallAB	Mon4	1st Soccer Field	Hato Kenta	既存のスポーツ競技や種目にとらわれることなく、子どもからお年寄りまで「誰でも楽しめるスポーツ」として普及してきたニュースポーツの実践を通して、運動の得意・不得意に関わらず、自分自身の体力に応じた「新たなスポーツ」を楽しむ方策などを見つけ出し、スポーツそのものに対する自分の価値観について考える.	当日の実施場所や教室は、天候等によって変更になるために、決定後周知 elements by gender(contact). G-course. Details will be annouced.. face-to-face
2340293	Advanced Physical Education Fitness Training	3	0.5	3	FallAB	Mon4	SEKISHO Field	Masegi Seiya	Through aerobic exercise and strength exercises targeting the core, students will experience feeling, thinking, and challenging to improve their physical ability.	elements by gender(special rule/pair/team). G-course. face-to-face

Established parent

Requirements
Foreign Languages

Japanese Required Courses

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
3990312	Japanese 101	2	2.0	1	FallAB	Mon3,Wed1,Fri4	9L101, 9L202	Vanbaelen Ruth,Yamamoto Chinami	Students will work towards developing basic skills in listening and speaking in Japanese, and basic literacy skills. NB: Ability to read and write Hiragana is a pre-requisite for this class.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990332	Japanese 201	2	2.0	1, 2	FallAB	Mon3,Wed1,Fri4	9L102	Ishigami Ayako,Vanbaelen Ruth	Students will work on further developing and refining basic skills in using the Japanese language.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990352	Japanese 301	2	2.0	1, 2	FallAB	Mon3,Wed1,Fri4	9L201	Garmaeva Olga,Vanbaelen Ruth	Students will continue working towards developing intermediate skills in using the Japanese language.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
3990372	Japanese 401	2	2.0	1, 2	FallAB	Mon3, Wed1, Fri4	CA406	Tanaka Takashi, Vanbaelen Ruth	The aim of this course is for students to develop their ability to think and express themselves in Japanese. Students will learn to write reports, make presentations and conduct surveys using Japanese.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990422	Japanese 102	2	2.0	1	SprAB	Wed2, Mon/Fri3	9L101, 9L202	Vanbaelen Ruth, Yamamoto Chinami	Students will continue working towards developing basic skills in using the Japanese language.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990442	Japanese 202	2	2.0	1, 2	SprAB	Wed2, Mon/Fri3	9L102	Ishigami Ayako, Vanbaelen Ruth	Students will work towards beginning to develop intermediate skills in listening and speaking in Japanese, and literacy skills.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
3990462	Japanese 302	2	2.0	1, 2	SprAB	Wed2, Mon/Fri3	9L201	Garmaeva Olga, Vanbaelen Ruth	Students will continue working towards developing intermediate skills in using the Japanese language.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990482	Japanese 402	2	2.0	1, 2	SprAB	Wed2, Mon/Fri3	9G408	Tanaka Takashi, Vanbaelen Ruth	The aim of this course is for students to develop their ability to think and express themselves in Japanese. Students will learn to write reports, make presentations and conduct surveys using Japanese.	Placement into an appropriate level will be performed via the placement test administered by the CEGLOC. As much as possible, Japanese is used as the main language of instruction. English will be used according to the students' needs and wants. Lecture is conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Established parent

Requirements
Information Literacy

Information Literacy

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
6190101	Information Literacy (Lectures)	1	1.0	1	FallA	Tue3,4	3A405	Simona Vasilache	This course teaches basic knowledge of computers, the Internet and the social positioning of computers. Students learn how computer systems are made, about the structure of the Internet, information security, as well as intellectual property rights and information ethics.	For Students in English Program. Lecture is conducted in English. Online(partially face-to-face) Check manaba for details.
6490102	Information Literacy (Exercises)	2	1.0	1	FallB	Tue3,4	Academic Computing and Communications Center Satellite A203	Simona Vasilache	This course teaches fundamental skills for computer use. By using computers to create documents and presentations, disseminate information on the Internet and share information, students acquire basic information utilization skills.	For Students in English Program. Lecture is conducted in English. face-to-face
6590102	Data Science	2	2.0	1	SprAB	Tue3,4	2D202, 2D203	Simona Vasilache	This course teaches students about basic concepts of data science and fundamental techniques for data collection, management and analysis. Students will acquire practical methods for data utilization. Through concrete examples from data science, they will also develop an understanding of how data is used in society.	For Students in English Program. Lecture is conducted in English. face-to-face

Established parent

Requirements
Art

Art

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
4004013	Workshops on Japanese-style Painting	3	1.0	1 - 4	SprAB	Mon4,5	practice room of Art & Design 1	Yamamoto Hiroyuki	“Mosha (reproduction),” the embodiment of the saying “to understand the past is to know the present,” is a practical skill that is essential for studying Japanese painting. In this course, you will use materials such as sumi (black ink) and Japanese brushes to study various techniques and methods of mosha, and experience the charm of expression through ink sketching as seen in the “National Treasure - Choju-giga” (Scrolls of Frolicking Animals). In addition, the content of this course will be planned individually according to students' levels and interests.	Participation is limited to 15 persons. Work Experience faculty. face-to-face
4005013	Workshops on Sculpture	3	1.0	1 - 4	FallAB	Thu4,5	practice room of Art & Design 1	Miyasaka Shinji,Ohara Hisaaki	The goal of this course is to produce a statue of head made of clay using a model, it also aims to develop fundamental abilities of expression in three-dimentional format grasped through actual production.	人数制限あり Work Experience faculty. face-to-face

開設母体

要件
社会国際学教育プログラム(社会・国際学群)

専門基礎科目(選択):社会国際学教育プログラム

科目番号	科目名	授業方法	単位数	標準履修年次	実施学期	曜時限	教室	担当教員	授業概要	備考
BE21041	Academic Writing for Social Sciences I	1	2.0	1・2	秋AB	月5,6	1C403	Haggis Devena Penelope	This course is an introduction to the elements of academic writing. Students will cover models and samples of academic writing with the aim of improving their academic writing for course work, research papers and graduation thesis. Students will build a solid foundation for academic writing, by analyzing the different writing communication styles, format, and language accuracy.This a practical course with lots of writing tasks. You will also need to spend time at home to fulfil the course requirements.	Course Semester/Module is subject to change. Course details will be announced through TWINS Bulletin Board. Non-native speakers of English are encouraged to attend this course. Lectures are conducted in English. 英語で授業。 対面 equivalent to ″ English Writing I″ in 2010-2012.
BE21051	Academic Writing for Social Sciences II	1	2.0	1・2	春AB	月5,6	1B202	Haggis Devena Penelope	This course aims to develop the skills needed for academic writing. Academic writing is a different type of English communication that uses accuracy, complex vocabulary, objective writing, and critical thinking for problem solving and the development of an argument. Classes will focus on the writing styles, format, structure, and language necessary to write an academic paper.	Lectures will be conducted in English. Non-native speakers of English are encouraged to apply. 英語で授業。 対面
BE21071	Japanese Learning Support I	1	2.0	1・2	秋AB	月4,5	1B302	田中 孝始	This course is designed to support you to acquire Japanese language skills, and also designed to deepen the Students' understanding of the lifestyle and culture of Japan using subjects that are appropriate for the students.	This class is aiming for an equivalent of N3 of the Japanese Language Proficiency Test. The number of students is limited to 25. 対面
BE21081	Japanese Learning Support II	1	2.0	1・2	秋C	月4,5, 金3,4	1B302	田中 孝始	This course is designed to support you to acquire Japanese language skills, and also designed to deepen the Students' understanding of the lifestyle and culture of Japan using subjects that are appropriate for the students.	This class is aiming for an equivalent of N2 (N3) of JLPT. The number of students is limited to 25. 対面
BE21091	Japanese Learning Support III	1	2.0	1・2	春AB	月4,5	1B302	田中 孝始	This course is designed to support you to acquire Japanese language skills, and also designed to deepen the Students' understanding of the lifestyle and culture of Japan using subjects that are appropriate for the students.	・The number of students is limited to 25.This class is aiming for an equivalent of N3 of the Japanese Language Proficiency Test. 対面

BE21121	Contemporary World Politics	1	2.0	1・2	秋AB	金5,6	1C210	キンポ ネイサン ギルバート	Contemporary World Politics provides students with an introduction to key theories and issues in global politics. After an overview of the evolution of world politics, the course proceeds to discuss major theoretical perspectives and concepts in international relations. The greater part of the course is devoted to examining major global themes, issues, developments, and institutions. Discussions on overall global processes and trends include: the historical evolution of global politics; the global rise of autocracy; the rise of China and the relative decline of the U.S.; the shift from a unipolar to a multipolar or bipolar world order; and international political economy. Covered among the major global issues are: poverty and inequality; identity politics (nationalism, religion and ethnicity); international migration; conflict and security; human rights, and global environmental challenges. Contemporary World Politics seeks to help students adeptly weave theory, history and current issues in analyzing global politics in all its complexities, and construct their own judgments about contemporary developments.	英語で授業。 G科目. 対面
BE21131	Introduction to Programming	1	2.0	1・2	春AB	火1,2	1C206	ヴァシラケ シモナ	This course is focused on helping students acquire fundamental programming notions. Some of the topics that will be covered include starting programming from "pen&paper", pseudocode, algorithms, data types, basic control structures etc.	英語で授業。 G科目. 対面 The number of students is limited to 30.
BE21171	Law and Society in Japan	1	1.0	2 - 4					This course is to provide an introduction to law and to the Japanese legal system. The topics covered by this course include the development of Japanese law, the basic structure of Japanese law, criminal and civil law of Japan and future prospects of Japanese law and legal system.	This course is available only for students who acquired the credit of Introduction to Law. The number of students is limited to 20-25. BB28081と同一。 英語で授業。 2024年度開講せず。 G科目. 対面
BE21181	Sociology of Contemporary Japan	1	2.0	1・2					The aim of this course is to analyze the social and economic changes in Japan, with particular focus on changes in the nature of work in society and its implications in Contemporary Japanese society, including complex issues such as migration, foreign workers, ageing society, job hunting, working poor and inequality.	Limited to 35 students. 西暦奇数年度開講。 BB11871と同一。 英語で授業。 G科目. 対面 Equivalent to "Social Issues in Contemporary Japan (BE21181)"
BE21201	International Economics	1	2.0	2	春AB	水3,4	3A202	黒川 義教	This course will introduce students to basic international economic theories and their applications to real world data mainly about Japan's international trade and finance. I will emphasize the usefulness of basic international economic theories in understanding international economic issues. This course does NOT require BC51061 Introductory Microeconomics or BC51081 Intro-Intermediate Macroeconomics as a prerequisite. In class, I will explain all necessary background to understand this course.	社会・国際学群の学生に限る。 BC51071と同一。 英語で授業。 対面
BE21231	マクロ経済学概論	1	2.0	2	秋AB	木1,2	3B202	内藤 久裕	This course covers the basic concepts in macroeconomics. Topics include the IS-LM model, aggregate demand, aggregate supply and the Phillips curve, monetary and fiscal policy, rational expectations, real business cycle models, micro foundations, and long-run economic growth.	BC51081と同一。 英語で授業。 対面 Only those who are able to participate in face-to-face classes are eligible.

BE21241	Media Politics	1	2.0	1 - 3	秋AB	水3,4	3A308	川﨑 レスリータック	From “traditional” media, such as newspapers and television, to new media formats including websites, blogs and social media channels, in this course, students will examine the intersection between media and politics from historical and theoretical perspectives. Special emphasis is placed on the use of the internet and “new media” by political actors for the purpose of effecting political outcomes.	BC51161と同一。 英語で授業。 対面
BE21371	Introduction to Law	1	2.0	1・2	春AB 春C	金3 水3,4	1C406	宮坂 渉,秋山 肇	This course aims to make students get comprehensive introduction to Jurisprudence or legal studies. It addresses the character and contents of each field in Jurisprudence through practical and case examples.	The number of students is limited to 25. 英語で授業。 対面
BE21391	Introduction to Sociology	1	2.0	1・2	秋AB	木5,6	1C406	ウラノ エジソン ヨシアキ	この授業は社会学における基礎概念を紹介するとともに、代表的な社会学者についても解説する。授業では、グロバリゼーション、国際人口移動、多様性、家族及び社会格差など、現代社会を理解するためにキーとなるテーマを議論する。	Bruce, Steve(2018) Sociology: A Very Short Introduction, Oxford University Press. Giddens,A. and Sutton,P.W.(2017) Sociology 8th Edition, Polity. 英語で授業。 対面
BE21511	Academic Discussion Seminar	1	2.0	1・2	秋AB	木3,4	3B302	ヴァシラケ シモナ	The goal of this course is to engage students in active discussions on various contemporary topics, ranging from politics, economics, science to culture, entertainment etc. The students will be encouraged to express and defend their opinions openly and actively, as well as propose issues to be debated.	英語で授業。 G科目. 対面. interdepartmental course The number of students is limited to 30. Students who received the credits from Academic Discussion Seminar II in AY2018 and earlier cannot register.
BE21861	Introduction to Economics	1	2.0	1・2	春AB	火5,6	1C403	モゲス アブ ギルマ	The course introduces students to the fundamentals of economics. Introduction to Economics provides foundational skills to understand concepts, theories, and applications in the field of economics. As an entry level course for undergraduate students in the social sciences, the course provides conceptual framework on how economists think about the workings of the market system. The course introduces the concepts of demand and supply, how these forces operate and interact in the market system, explains the competitive process of how the market equilibrium is established, and how market prices are determined to allocate relatively scarce resources. Students also examine the theory of the consumer, the theory of the business firm, the theory of utility function and utility maximization, the theory of the cost minimization and profit maximization, and social welfare issues. Moreover, students will learn about the central concepts and policy issues of macroeconomics such as aggregate output, economic growth, unemployment, inflation, interest rate, exchange rate. By the end of the course, students will be able to appreciate how the economy operates, recognize the decision-making and choice behavior of consumers and business firms, and understand how the market system operates at both microeconomic and macroeconomic levels.	Students who have earned credits of BE21211 or BE21851 are not permitted to take this class. This course is equivalent to "Principles of Economics" (BE21861). 英語で授業。 G科目. 対面

BE21871	Monetary Economics	1	2.0	3・4	秋AB	火5,6	1C403	モゲス アブ ギルマ	This course deals with the monetary theory and policy in the context of modern economies. It addresses the role and definition of money in the economy, the microeconomic and macroeconomic aspects of money, the demand for money, the supply of money and interest rates, monetary policy making and instruments of monetary policy, and central banking at theoretical and practical levels. The course equips students with the skills to understand the operation of modern economies and the main monetary aggregates of an economy over time and across countries and its implications on economic welfare indicators.	Reading materials are uploaded on manaba system. 英語で授業。 G科目. 対面

専門科目(選択):社会国際学教育プログラム

科目番号	科目名	授業方法	単位数	標準履修年次	実施学期	曜時限	教室	担当教員	授業概要	備考
BE22021	Japan and the World	1	2.0	2 - 4	秋AB	月3,4	3A403	潘 亮	This course focuses on the history of Japan's domestic politics and foreign relations from the end of the Second World War till the end of 1970s.	西暦偶数年度開講。 BC11961と同一。 英語で授業。
BE22031	Japanese Foreign Policy	1	2.0	2 - 4					This course examines the historical background of modern Japan's foreign policymaking from early 1890s till the end of the Second World War (1945). Main emphasis of the lectures will be placed on the interaction between Japanese domestic politics and foreign affairs.	西暦奇数年度開講。 BC11911と同一。 英語で授業。 対面(オンライン併用型)
BE22051	Public Policy	1	2.0	2 - 4	春AB	木4,5	1C403	ウラノ エジソン ヨシアキ	The objective of this course is to provide students with the basic concepts of public policies to enable them to understand, analyze and discuss the various public policies that affect our lives on a daily basis, by focusing mainly in the field of social policies, such as health care systems, income redistribution and labour policies.	Limited to 35 students. 西暦偶数年度開講。 BB11881, BC11461と同一。 英語で授業。 G科目. 対面
BE22071	International Politics	1	2.0	2 - 4	秋AB	火5,6	3A202	大友 貴史	This course examines various theories and cases to understand the dynamics of international politics.	BC11121と同一。 英語で授業。 対面
BE22151	Democratization	1	2.0	2 - 4					The objective of this course is to help students better understand democratization using the tools and theories of political science. The target of this course is advanced undergraduate students (1) who would like to study questions related to democracy and dictatorship and (2) who would like to write the graduation thesis in this area of research. To this end, this course covers a variety of topics including the concept and typology of political regime, regime change, democracy and development, support for democracy, crisis of democracy, nondemocratic regime, elections in nondemocratic settings, and foreign aid and democracy assistance. Moreover, students are expected to understand and critically evaluate the various theories that are used to explain democratization.	Open in an odd number year. Students who completed "Democratization (BE22131)" in AY2019 cannot register. 西暦奇数年度開講。 英語で授業。 対面
BE22161	Comparative Law I: Legal Traditions and Cultures	1	2.0	2 - 4	秋AB	水1,2	1B208	オルトラーニ アンドレア	This course provides an overview of the world's major legal traditions. The lessons will present the birth and evolution of the civil law, common law, Islamic law and of other traditions, according to the interest of the participants.	This course is open to all students. A background in law is useful but not required. 英語で授業。 対面
BE22171	Comparative Law II: History and Methods	1	2.0	3・4	春AB	水1,2	共同利用棟A101	オルトラーニ アンドレア	This course focuses on the development and on modern methodological issues of comparative law. The first lessons present the origins and the history of comparative law. The second part provides an overview of several methodological issues and of comparative methods in law.	This course is recommended to students who attended Comparative Law I: Legal Traditions and Cultures. 英語で授業。 対面
BE22181	Japanese Law I: Introduction to Japanese Law	1	2.0	3・4	秋AB	月3,4	1B208	オルトラーニ アンドレア	This course offers an overview of the legal system of Japan, in historical and comparative perspective. The lessons will cover modern legal history, constitutional law, private law, criminal law, family law and other areas.	This course is open to all students. A background in law is useful but not required. 英語で授業。 対面

BE22191	Japanese Law II	1	2.0	3・4	春AB	月3,4	1B208	オルトラーニ アンドレア	This course focuses on the Supreme Court of Japan. The first lessons present its origin, structure and functions. The second part of the course provides an overview of the most important cases decided by the Supreme Court of Japan.	英語で授業。 対面
BE22221	Japanese Economy	1	2.0	2 - 4	秋AB	月5,6	3A203	黒川 義教	The main purpose of this course is to understand basic historical facts about the Japanese Economy. We analyze those facts both empirically and theoretically and relate most Japanese issues to those in the U.S. The goal of this course for Japanese students is to explain to foreign people about the Japanese economy in English, and that for international students is to be more interested in Japan. As a prerequisite, this course requires BC51061 Introductory Microeconomics and BC51071 International Economics, or equivalent.	BC11881と同一。 英語で授業。 対面
BE22231	計量経済学	1	2.0	2 - 4	春AB	火1,2	3A305	ユウ ゼンフェイ	This course is an introduction to econometrics. We will begin with the linear regression model and its estimation and inference. Then we will cover linear models with endogeneity, linear panel models, limited dependent variables, and models used in program evaluations. This course prerequires Introductory Statistics.	BC12061と同一。 英語で授業。 対面
BE22241	Economic History	1	2.0	2 - 4	秋AB	月3,4	1C405	高橋 秀直	This course will provide an overview of history of international finance from the late 19th century to the interwar period.	This class will be lectured in English. BB41541と同一。 英語で授業。 対面
BE22261	Development Economics	1	2.0	2 - 4	春AB	水4,5	1C305	箕輪 真理	This course is an introduction to development economics, covering both theoretical and empirical research related to development. The course will cover many of the key topics in development: poverty and inequality, industrialization,rural sector development,human capital,governance and institution,among others.	BB41421, BC12731と同一。 英語で授業。 対面(オンライン併用型)
BE22271	International Trade	1	2.0	2 - 4					As the economy becomes more globalized, it is becoming necessary to study the basic mechanism of international trade and its impact on welfare. In this course, we first study the concept of comparative advantage and study why countries will be engaged in international trade. Then, we study the impact on welfare by using several models. (The Ricardian, Heckscher-Ohlin and Specific Factor Model). Then, we study the monopoly model and its implication for international trade theory. In addition, we discuss the impact of international factor movement such as immigration and foreign direct investment.	西暦奇数年度開講。 BB41601, BC11411, FH25051と同一。 英語で授業。 対面
BE22292	International Financial Institutions and Economic Development in Southeast Asia	2	2.0	2 - 4					This course will aim at applying the macroeconomic knowledge to analyze the actual economic development and macroeconomic issues in emerging economies in Southeast Asia on the basis of reports by the World Bank and the IMF. The course will focus on COVID-19's economic impacts and policy responses. This course will be conducted in English.	Equivalent to "International Financial Institutions and Economic Development in Emerging Economies in Southeast Asia" (BE22292). BC12352と同一。 英語で授業。 2024年度開講せず。 実務経験教員. 対面
BE22302	開発と金融	2	2.0	2 - 4	春AB	木3,4	3A416	鈴木 英明	This course will discuss what modality of finance will be needed for achieving 2030 Sustainable Development Goals (SDGs), based on the understanding that conventional types of development finance such as ODAs will be vastly inadequate for SDGs. The discussion will take up a variety of new financing modalities for development, taking into account ongoing works at global forum such as the World Bank. This course will be conducted in English. Students need to expect heavy workload in terms of reading requirement and class presentation.	授業、クラス発表、エセー等すべて英語で行います。英語での学習、留学に関心がある人に向いています。 BC12342と同一。 実務経験教員. 対面 世界銀行元日本代表理事

BE22321	統計科学	1	2.0	2	秋AB	火1,2	3A409	ユウ ゼンフェイ	This course is a formal introduction to Statistics. No prior knowledge of probability and statistics is required as all concepts will be developed from the ground up. We will cover a range of topics including descriptive statistics, basics of probability, random variables, distribution and density functions, sampling distributions, point estimation, confidence intervals, and hypothesis testing. If time allows, a preview of the regression analysis will be provided. The details of regression analysis will be covered in Introductory Econometrics, which is a continuation of this course.	2016年度までの BC12031「統計科学」の単位を取得した者は履修不可. BC51181と同一。 英語で授業。 対面
BE22351	Introduction to International Law	1	1.0	1 - 4	秋C	木5,6	1C306	秋山 肇	This course introduces the basics of international law. Students learn history and traditional topics as well as recent issues in international law.	This course welcomes non-native English speaking students of both School of Social and International Studies and other schools and programmes. 英語で授業。 対面
BE22391	International Human Rights Law	1	2.0	2 - 4	秋C	火1,2, 木3,4	1C306	秋山 肇	This course is composed of three parts. Part I “Invitation to International Human Rights Law” covers the basics of humanity, international society and international law. Part II “Basics of International Human Rights Law” discusses the basics of international human rights law such as the Universal Declaration of Human Rights and International Covenants on Human Rights. Part III “Issues” deals with issues in international human rights law such as women, children, refugees and stateless persons. In the third part, students may be required to make an oral presentation depends on the number of students.	This course welcomes native and non-native English speakers of both Undergraduate Program of International Social Studies (TISS) of the School of Social and International Studies and other colleges and programmes. BB28071と同一。 英語で授業。 対面
BE22401	Transnational Social Policy	1	2.0	2 - 4					Globalization has brought many changes in social life, including increasing flows of financial resources, goods and persons. Among the new challenges these changes pose to governments and civil society is the need to create new social agenda and to develop social policies. The aim of this course is to discuss these challenges for the 21st Century from a transnational perspective.	Biennial Course (offered in odd years) 西暦奇数年度開講。 BB11861, BC11471と同一。 英語で授業。 G科目. 対面
BE22451	Social Development	1	2.0	2 - 4	秋AB	水1,2	3A312	松島 みどり	People’s well-being cannot be achieved by economic growth alone, and the important role of social development has became widely recognised in international development practice. This course is offered for students firstly to increase understandings of why and how social development became a main stream of development by learning historical background and development theory. Secondly, we focus on some key concept and practice including human development, capability approach, participatory approach, and social capital. In the latter half of the course, we learn social development in relation to important development topics namely, poverty, human capital, labour and employment, micro finance, social protection, and human rights and human security. With some examples of on-going development programmes, students will discuss significance and applications of social development in practical field, and how we can improve development programmes towards sustainable development.	西暦偶数年度開講。 BC12221と同一。 英語で授業。 対面 平成20年度まで「社会開発論II」に相当

BE22471	Globalization and Development	1	2.0	2 - 4	春AB	金5,6	1C310	キンポ ネイサン ギルバート	This course examines the politics of development in the era of globalization, exploring major issues and problems being encountered and confronted by the developing countries in the contemporary period. The aims of the course are: ・To broaden students' knowledge of major development issues and the impact of globalization on developing countries. ・To provide students with a good introduction to globalization theory and to the politics of development.	BC11351と同一。 英語で授業。 G科目. 対面
BE22491	西洋法制史	1	1.0	3・4	秋C	水6,応談	1C305	宮坂 渉	This course provides students with introductory overview of European Legal History. This year I would like to focus on the ancient Roman Law, which is the basis of legal systems not only in European continent countries, but also in many countries all over the world influenced from the former countries.	水曜の7限も開講 Periods to be decided by appointment. 西暦偶数年度開講。 BB28771と同一。 英語で授業。 対面
BE22501	言語人類学	1	2.0	2 - 4	春AB	火1,2	3A304	井出 里咲子	An introduction to linguistic anthropology, this course explores the relationship between language and culture, especially on how language reflects culture and how culture creates language. Through the lectures, required readings, group discussions, and student projects, we will learn the roles and functions of language in creating universal as well as cultural-specific worldviews.	BC11511と同一。 英語で授業。 対面(オンライン併用型) （旧「人類言語学」）
BE22521	International Education	1	2.0	2 - 4					This course invites both overseas and Japanese students. The major purpose of the course is to enable students to learn about issues and current trends in educational studies in international perspectives. It deals with themes, such as development, colonial legacy and global interaction, in education.	BC12241と同一。 英語で授業。 2024年度開講せず。 対面(オンライン併用型)
BE22551	Outline of Japanese Education	1	2.0	2 - 4					This course is offered to students who are interested in the historical development of Japanese education. The course looks at the processes of the foundation of the Japanese education system and the formation of a modern state in Japan. Special reference is made to the past and present dimensions of patterns of the cross-national transfer of policy for education. Thus international and comparative perspectives are welcome throughout the course.	BC12251と同一。 英語で授業。 2024年度開講せず。 対面(オンライン併用型)
BE22581	Sociology of Migration	1	2.0	2 - 4	秋AB	木3,4	1C406	ウラノ エジソン ヨシアキ	This course aims to analyze international migration focusing on key themes for understanding this social phenomenon. To this end, topics such as gender and migration, transnational communities, migration policies will be addressed through a sociological and multidisciplinary perspective.	Limited to 30 students. 西暦偶数年度開講。 英語で授業。 G科目. 対面 Biennial Course (offered in even years)
BE22821	History of Economic Thought	1	2.0	2 - 4	秋AB	木5,6	1C403	モゲス アブ ギルマ	The course is about the history, philosophy and evolution of economic ideas and thoughts. We review critically the different schools of economic thoughts from the classical to the modern schools to provide students with a comprehensive understanding of the origin, evoultion, arguments, and philosophy of economics and the economists behind such powerful ideas.	BC16021と同一。 英語で授業。 対面
BE22851	Mathematical Economics	1	2.0	2 - 4	春AB	火1,2		生藤 昌子	This course introduces students to the most fundamental analytical tools of mathematics for economics. It provides the necessary skills and training to use mathematical approach in economic analysis. The goal of this course is to give the students skills to apply the mathematical methods to solution of economics problems.	Identical to BB41561 and BC16011. Lectures are conducted in English. Online(Asynchronous) BB41561, BC16011と同一。 英語で授業。 オンライン(オンデマンド型)

BE22861	Health Economics	1	2.0	2 - 4	春AB	木5,6	1C403	モゲス アブ ギルマ	Health Economics is an applied economics course that analyzes issues in health, medical care and health finance. The demand for health and medical care services and the economic behavior of health service providers and the operation of health insurance markets are analyzed with economic tools of analysis and perspectives. The role of the government sector in the provision, regulation and financing of health care services are addressed within the context of health sector policies both in developed and developing countries.	BC12921と同一。 英語で授業。 対面
BE22871	開発途上国における諸問題	1	2.0	2 - 4	秋AB	金4,5	3K102	中野 優子	The goal of this course is to understand contemporary and important economic and social issues in developing countries. We also analyze statistical data related to the topics.	BB41401, BC12121と同一。 英語で授業。 対面
BE22981	Psychology of Family Violence	1	1.0	2 - 4	春C	集中	1B208	前小屋 千絵	This course provides students with a basic overview of family violence from victimological and psychosocial perspective. It covers different types of family violence such as child abuse, spouse abuse and elder abuse. Students will learn how to decrease victims' vulnerability and enhance victims' recovery. Further, we will discuss culture influence on our perception towards family violence issues.	7/22 (3-6 periods), 7/29 (3-5 periods), 8/5 (3-5 periods) 英語で授業。 対面 Same as "G30 Special Lecture VIII (BE22981)" in AY2019 and before.
BE31103	インターンシップI	3	2.0	2 - 4	通年	随時		ウラノ エジソン ヨシアキ	Undertaking internships and gaining experience in workplaces such as companies, research institutes and non-profit organizations is valuable for our students. Students can learn skills that cannot be acquired through their university classes and use these opportunities to objectively evaluate their own abilities and aptitude. Mutual agreements between the workplaces and the School, as well as reports submitted from the participating internship institutions after the completion of internship, are required to obtain credit.	This course is available only for students in International Social Studies. Application is required. 英語で授業。 CDP. 対面
BE31113	インターンシップII	3	1.0	2 - 4	通年	随時		ウラノ エジソン ヨシアキ	Undertaking internships and gaining experience in workplaces such as companies, research institutes and non-profit organizations is valuable for our students. Students can learn skills that cannot be acquired through their university classes and use these opportunities to objectively evaluate their own abilities and aptitude. Mutual agreements between the workplaces and the School, as well as reports submitted from the participating internship institutions after the completion of internship, are required to obtain credit.	This course is available only for students in International Social Studies. Application is required. 英語で授業。 CDP. 対面
BE31133	インターンシップIII	3	1.0	4	春AB	随時		ウラノ エジソン ヨシアキ	Undertaking internships and gaining experience in workplaces such as companies, research institutes and non-profit organizations is valuable for our students. Students can learn skills that cannot be acquired through their university classes and use these opportunities to objectively evaluate their own abilities and aptitude. Mutual agreements between the workplaces and the School, as well as reports submitted from the participating internship institutions after the completion of internship, are required to obtain credit.	開講年度の８月卒業予定者のみ履修可。 英語で授業。 CDP. 対面

専門科目(必修):社会国際学教育プログラム

科目番号	科目名	授業方法	単位数	標準履修年次	実施学期	曜時限	教室	担当教員	授業概要	備考
BE12102	Seminar A	2	1.0	3	秋AB	随時		社会・国際学群教員(英語プログラムの教員を除く)	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars A1 to A5. Students who register for Seminar A1, A2, A3, A4, or A5 cannot register for Seminar A.	英語で授業。 対面
BE12112	Seminar A1	2	1.0	3	秋AB	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar A1 cannot register for Seminar A, A2, A3, A4, and A5.	Monday 5,6 (In principle) 英語で授業。 対面
BE12122	Seminar A2	2	1.0	3	秋AB	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar A2 cannot register for Seminar A, A1, A3, A4, and A5.	英語で授業。 対面

BE12132	Seminar A3	2	1.0	3					Students who register for Seminar A3 cannot register for Seminar A, A1, A2, A4, and A5.	英語で授業。 2024年度開講せず。 対面
BE12142	Seminar A4	2	1.0	3	秋AB	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar A4 cannot register for Seminar A, A1, A2, A3, and A5.	英語で授業。 対面
BE12152	Seminar A5	2	1.0	3	秋AB	随時		ヴァシラケ シモナ	Students who register for Seminar A5 cannot register for Seminar A, A1, A2, A3, and A4.	英語で授業。 対面
BE12202	Seminar B	2	1.0	3	秋C	随時		社会・国際学群教員(英語プログラムの教員を除く)	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars B1 to B5. Students who register for Seminar B1, B2, B3, B4, or B5 cannot register for Seminar B.	英語で授業。 対面
BE12212	Seminar B1	2	1.0	3	秋C	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar B1 cannot register for Seminar B, B2, B3, B4, and B5.	Monday 5,6 (In principle) 英語で授業。 対面
BE12222	Seminar B2	2	1.0	3	秋C	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar B2 cannot register for Seminar B, B1, B3, B4, and B5.	英語で授業。 対面
BE12232	Seminar B3	2	1.0	3					Students who register for Seminar B3 cannot register for Seminar B, B1, B2, B4, and B5.	英語で授業。 2024年度開講せず。 対面
BE12242	Seminar B4	2	1.0	3	秋C	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar B4 cannot register for Seminar B, B1, B2, B3, and B5.	英語で授業。 対面
BE12252	Seminar B5	2	1.0	3	秋C	随時		ヴァシラケ シモナ	Students who register for Seminar B5 cannot register for Seminar B, B1, B2, B3, and B4.	英語で授業。 対面
BE12302	Seminar C	2	1.0	3	春AB	随時		社会・国際学群教員(英語プログラムの教員を除く)	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars C1 to C5. Students who register for Seminar C1, C2, C3, C4, or C5 cannot register for Seminar C.	英語で授業。 対面
BE12312	Seminar C1	2	1.0	3	春AB	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar C1 cannot register for Seminar C, C2, C3, C4, and C5.	Moday 5,6 (In principle) 英語で授業。 対面
BE12322	Seminar C2	2	1.0	3	春AB	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar C2 cannot register for Seminar C, C1, C3, C4, and C5.	英語で授業。 対面
BE12332	Seminar C3	2	1.0	3	春AB	随時	1B202		Students who register for Seminar C3 cannot register for Seminar C, C1, C2, C4, and C5.	英語で授業。 対面
BE12342	Seminar C4	2	1.0	3	春AB	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar C4 cannot register for Seminar C, C1, C2, C3, and C5.	英語で授業。 対面
BE12352	Seminar C5	2	1.0	3	春AB	随時		ヴァシラケ シモナ	Students who register for Seminar C5 cannot register for Seminar C, C1, C2, C3, and C4.	英語で授業。 対面
BE12402	Seminar D	2	1.0	4	秋AB	随時		社会・国際学群教員(英語プログラムの教員を除く)	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars D1 to D5. Students who register for Seminar D1, D2, D3, D4, or D5 cannot register for Seminar D.	英語で授業。 対面
BE12412	Seminar D1	2	1.0	4	秋AB	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar D1 cannot register for Seminar D, D2, D3, D4, and D5.	Moday 5,6 (In principle) 英語で授業。 対面
BE12422	Seminar D2	2	1.0	4	秋AB	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar D2 cannot register for Seminar D, D1, D3, D4, and D5.	英語で授業。 対面
BE12432	Seminar D3	2	1.0	4					Students who register for Seminar D3 cannot register for Seminar D, D1, D2, D4, and D5.	英語で授業。 2024年度開講せず。 対面
BE12442	Seminar D4	2	1.0	4	秋AB	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar D4 cannot register for Seminar D, D1, D2, D3, and D5.	英語で授業。 対面
BE12452	Seminar D5	2	1.0	4	秋AB	随時		ヴァシラケ シモナ	Students who register for Seminar D5 cannot register for Seminar D, D1, D2, D3, and D4.	英語で授業。 対面
BE12502	Seminar E	2	1.0	4	秋C	随時		社会・国際学群教員(英語プログラムの教員を除く)	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars E1 to E5. Students who register for Seminar E1, E2, E3, E4, or E5 cannot register for Seminar E.	英語で授業。 対面
BE12512	Seminar E1	2	1.0	4	秋C	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar E1 cannot register for Seminar E, E2, E3, E4, and E5.	Moday 5,6 (In principle) 英語で授業。 対面

BE12522	Seminar E2	2	1.0	4	秋C	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar E2 cannot register for Seminar E, E1, E3, E4, and E5.	英語で授業。 対面
BE12532	Seminar E3	2	1.0	4					Students who register for Seminar E3 cannot register for Seminar E, E1, E2, E4, and E5.	英語で授業。 2024年度開講せず。 対面
BE12542	Seminar E4	2	1.0	4	秋C	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar E4 cannot register for Seminar E, E1, E2, E3, and E5.	英語で授業。 対面
BE12552	Seminar E5	2	1.0	4	秋C	随時		ヴァシラケ シモナ	Students who register for Seminar E5 cannot register for Seminar E, E1, E2, E3, and E4.	英語で授業。 対面
BE12602	Seminar F	2	1.0	4	春AB	随時		社会・国際学群教員(英語プログラムの教員を除く),ユウ ゼンフェイ	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars F1 to F5. Students who register for Seminar F1, F2, F3, F4, or F5 cannot register for Seminar F.	英語で授業。 対面
BE12612	Seminar F1	2	1.0	4	春AB	随時	1B303	オルトラーニ アンドレア	Students who register for Seminar F1 cannot register for Seminar F, F2, F3, F4, and F5.	Moday 5,6 (In principle) 英語で授業。 対面
BE12622	Seminar F2	2	1.0	4	春AB	随時	1C402	モゲス アブ ギルマ	Students who register for Seminar F2 cannot register for Seminar F, F1, F3, F4, and F5.	英語で授業。 対面
BE12632	Seminar F3	2	1.0	4					Students who register for Seminar F3 cannot register for Seminar F, F1, F2, F4, and F5.	英語で授業。 2024年度開講せず。 対面
BE12642	Seminar F4	2	1.0	4	春AB	随時	1C305	ウラノ エジソン ヨシアキ	Students who register for Seminar F4 cannot register for Seminar F, F1, F2, F3, and F5.	英語で授業。 対面
BE12652	Seminar F5	2	1.0	4	春AB	随時		ヴァシラケ シモナ	Students who register for Seminar F5 cannot register for Seminar F, F1, F2, F3, and F4.	英語で授業。 対面
BE12918	Graduation Thesis	8	6.0	3・4	通年	随時		社会・国際学群の教員または社会国際学教育プログラムの教員	Guidance is conducted mainly in English. The course is conducted under the guidance of an advisor and one sub-advisor.	This course is for students who apply for early graduation in 7 semesters. 英語で授業。 対面
BE12928	Graduation Thesis	8	6.0	3	春学期	随時		社会・国際学群の教員または社会国際学教育プログラムの教員	Guidance is conducted mainly in English. The course is conducted under the guidance of an advisor and one sub-advisor.	This course is for students who apply for early graduation in 6 semesters. 英語で授業。 対面
BE12938	Graduation Thesis	8	6.0	4	春学期	随時		社会・国際学群の教員または社会国際学教育プログラムの教員,ユウ ゼンフェイ	Guidance is conducted mainly in English. The course is conducted under the guidance of an advisor and one sub-advisor.	This course is for students who apply for graduation in 8 semesters. 英語で授業。 対面

Established parent　　Requirements

Interdisciplinary Program in Life and Environmental Sciences

School of Life and Environmental Sciences

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG02011	Physics	1	1.0	1	FallAB	Thu4	2C403	Neves Marcos Antonio, Kokawa Mito	Introduction to physics for life and environmental sciences. Basic areas of mechanics, thermodynamics, and waves will be covered.	Lecture is conducted in English. face-to-face
EG02021	Mathematics	1	1.0	1	FallAB	Fri5	2B208, 2B209	Tofael Ahamed	Introduction to mathematics for life and environmental sciences covers application of calculus using applied differentiation and integration, logarithmic and exponential functions, first order differential equations, matrix and probability. This course emphasizes to solve problems related to life and environmental sciences using a wide array of mathematical solutions.	Lecture is conducted in English. face-to-face
EG02031	Statistics	1	1.0	2	FallC	Tue2, Fri1	2C407	Irving Louis John	Introduction to statistics for life and environmental sciences.	Lecture is conducted in English. face-to-face A part of this lecture is planned as face-to-face. Watch TWINS Bulletin Board and announcements on manaba for schedule of face-to-face classes. The class format and content may be changed due to COVID-19 infection status and other factors.
EG02041	Advanced Mathematics	1	1.0	2	SprAB	Thu6	2C403	Tofael Ahamed	In this course, students will have a short review of applied calculus and introduces with the advanced mathematics sections like geometrical meaning of differential equations, solution of ordinary and partial differential equations, numerical analysis and Laplace transformation. These advanced mathematical skills will be invaluable to them to interpret the concepts of modeling of real world problems related to life and environmental sciences.	Lecture is conducted in English. face-to-face
EG02211	Chemistry I	1	1.0	1	FallA	Tue/Fri 6	2D206	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
EG02221	Chemistry II	1	1.0	1	FallB	Tue/Fri 6	2D206	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
EG02231	Chemistry III	1	1.0	1	FallC	Tue5, Thu6	2D205	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
EG03012	Paper Preparation and Presentation	2	1.0	4	FallC	by appointment		Kang Seung Won, Parkner Thomas	Preparation and help in writing the graduation thesis which is required towards the end of your fourth year. Also, preparation for the presentation of your results during the Presentation Meeting of all the graduation theses.	For students who started graduate research in spring semester Lecture is conducted in English. face-to-face Limited to Life and Environmental Sciences Undergraduate Students.
EG03022	Paper Preparation and Presentation	2	1.0	4	SprAB	by appointment		Kang Seung Won, Parkner Thomas	Preparation and help in writing the graduation thesis which is required towards the end of your fourth year. Also, preparation for the presentation of your results during the Presentation Meeting of all the graduation theses.	Lecture is conducted in English. face-to-face Limited to Life and Environmental Sciences Undergraduate Students.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks

College of Biological Sciences

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EB50171	Animal Systematics II	1	1.0	2, 3	FallC	Wed4, 5	2B208, 2B209	Wada Hiroshi	Students will learn the methodology to understand the diversity of multicellular animals from the viewpoint of evolutionary biology. In particular, learn in detail the origin of the metazoans, the evolution of the diploblasts, mollusks, echinoderms, and chordates, and learn how to reconstruct the evolutionary history by comparing modern animals.	See Syllabus or recent information from manaba for detail. Open in even number years. Lecture is conducted in English. Biodiversity course. GloBE Course. face-to-face Who has credit of EB50121 or EB50131 is ineligible.
EB50211	Plant Taxonomy I	1	1.0	2, 3	SprAB	Fri2	2B508	Ishida Ken-ichiro	Diversity, classification, morphology, ultrastructure, life history and phylogeny of non-green algae – glaucophytes, rhodophytes, cryptophytes, chlorarachniophytes, euglenophytes, dinoflagellates, haptophytes, and stramenopiles.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Biodiversity course. GloBE Course. Expected to attend all I, II, III through a year.. face-to-face EG20211 credit holders are ineligible.
EB50221	Plant Taxonomy II	1	1.0	2, 3	FallAB	Fri2	2B508	Nakayama Takeshi	Diversity, classification, morphology, ultrastructure, life history and phylogeny of green plants, including chlorophytes and land plants.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Biodiversity course. Expected to attend all I, II, III through a year.. face-to-face EG30221 credit holders are ineligible.
EB59101	Protistology	1	1.0	2 – 4	FallC	Fri2, 3	2B412	Ishida Ken-ichiro, Kuwayama Hidekazu, Degawa Yosuke, Nakayama Takeshi, Yabuki Akinori	Topics in protistology. Cellular evolution, cell biology, sex and reproduction, phylogeny and ecology of protists will be the subjects of this lecture.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Biodiversity course. face-to-face EG39101 credit holders are ineligible.
EB59141	Vertebrate Morphology	1	1.0	2, 3	FallC	Thu4, 5	2B411	Suzuki Daichi, 矢野 十織, Koyabu Daisuke	The morphology of various vertebrates is compared and its evolutionary biological background is explained. In particular, the ancestors of vertebrates, diversity of jawless fish, fin morphology of teleosts, morphological evolution associated with terrestrialization, diversity of mammals, and evolution of marine mammals are explained from a comparative morphological viewpoint.	Biennially conducted in English (odd-number academic years) or Japanese (even-number academic years). Biodiversity course. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EB59151	Vertebrate Evolution	1	1.0	2 - 4	FallAB	Mon3	2B208, 2B209	Irving Louis John	This course looks at the major transitions during vertebrate evolution, particularly focussing on the transition between water and land, and the adaptations which facilitated that transition. The diversification of animal life on land, and the subsequent return of some groups to water will be studied. This course will have a strong evolutionary biology focus.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Biodiversity course. GloBE Course. face-to-face EB59131 is ineligible.
EB60014	Programming I	4	1.0	2, 3	FallAB	Thu1		Tokunaga(Toquenaga) Yukihiko	In this lecture, students learn programing techniques for manipulating a variety of data. They will also learn simulation techniques with individual-based models. The programming language used is Ruby.	Lecture is conducted in English. Computational Biology & Bioinformatics Course. Online(Synchronous) EG20014 credit holders are ineligible.
EB62011	Genome Biology I	1	1.0	2, 3	SprAB	Tue1	2B412	Kuwayama Hidekazu	Lectures will cover basic knowledge on the structure and function of the genome, as well as technologies for DNA and genome analyses.	Lecture is conducted in English. Computational Biology & Bioinformatics Course. GloBE Course. face-to-face EG22011 credit holders are ineligible.
EB63111	Molecular Evolution I	1	1.0	2, 3	SprAB	Mon2		Inagaki Yuji	Molecular evolution is a research field that aims to elucidate the evolution of organisms based on information macromolecules such as DNA and proteins. In this lecture, the basic concepts of molecular evolution and the basics of molecular phylogenetic methods will be explained.	履修に際し、適宜、最新 のシラバスや manaba等の情報を確認してください Lecture is conducted in English. Computational Biology & Bioinformatics Course. GloBE Course. Online(partially face-to-face)
EB63141	Evolutionary Developmental Biology	1	1.0	2, 3					This course will focus on how molecular evolution of the genome and evolution of the morphology are related. After learned about several kinds of molecular evolutionary processes, students will learn how the genome construct the 3D morphology during embryogenesis. Combining what they learned about molecular evolution and developmental biology, students will learn several topics where the morphological evolution is linked with the molecular evolution of genome.	See Syllabus or recent information from manaba for detail. Open in odd number years. Lecture is conducted in English. Computational Biology & Bioinformatics Course. face-to-face
EB64021	Biometry II	1	1.0	2, 3	FallAB	Fri3		Tokunaga(Toquenaga) Yukihiko	This lecture introduces the dark side of statistics. Starting with randomization techniques, students learn relationships among different domains of statistical ideas: parametric, nonparametric, null hypothesis significance testing, information-theoretic methods, and the Bayesian methods.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Computational Biology & Bioinformatics Course. Online(Synchronous) EG34021 credit holders are ineligible.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EB64111	Theoretical Ecology	1	1.0	2, 3	SprAB	Thu1		Tokunaga(Toquenaga) Yukihiko	This course illustrates theoretical aspects of ecology with examples of laboratory experiments to connect mathematical expressions with ecological phenomena in nature.	Lecture is conducted in English. Computational Biology & Bioinformatics Course. Online(partially face-to-face). Online(Synchronous) EG34111 credit holders are ineligible.
EB71031	Cell Biology III	1	1.0	2, 3	FallAB	Thu3	2B508	Chiba Tomoki	Proteins are in a dynamic state, which is regulated by protein synthesis and degradation pathways. Each protein is degraded in a degree of selectivity, and its regulation is essential for the cell homeostasis and viability. In this class, we will learn the latest findings on the molecular mechanism of selective protein degradation and its physiological importance.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Molecular and Cellular Biology Course. GloBE Course. face-to-face EB71131 or EG35131 credit holders are ineligible.
EB72121	Developmental Biology II	1	1.0	2, 3	FallAB	Tue3	2B508	Niwa Ryusuke, Kobayashi Satoru, Sasakura Yasunori, Yaguchi Shunsuke, HAYASHI MAKOTO, shimada yuko, okamoto naoki, CascoRobles Martin Miguel	A goal of this course is to understand several important topics about animal developmental biology. Lectures in this course particularly focus on sex determination, gametogenesis, metamorphosis, axis specification, neural development, and diseases.	Watch TWINS Bulletin Board and announcements on manaba for shedule of face-to-face classes. Lecture is conducted in English. Molecular and Cellular Biology Course. Human Biology course. GloBE Course. face-to-face(partially online)
EB72911	Marine Biology I	1	1.0	2, 3	SprAB	Wed3	2B508	Inaba Kazuo, Agostini Sylvain Leonard Georges	Lecture will give you several topics on physical, chemical and biological properties of ocean to understand the physiology, reproduction, development, biodiversity and ecology of marine invertebrates and fish. This class will especially focus on the following aspects of marine life: life cycle, locomotion, sensory reception, biomineralization, biogeochemical distribution, photosynthesis, respiration, calcification, nitrogen fixation and the impact of climate change. We will give examples of marine organisms under planktonic and benthic conditions and coral reef. The history and present situation of marine biology research will be also included.	Lecture is conducted in English. Molecular and Cellular Biology Course. GloBE Course. face-to-face EG22911 credit holders are ineligible.
EB72921	Marine Biology II	1	1.0	2, 3	FallAB	Wed3	2B508	Inaba Kazuo, Sasakura Yasunori, Yaguchi Shunsuke, Shiba Kogiku, Nakano Hiroaki, Wada Shigeki, Agostini Sylvain Leonard Georges	Lecture will provide several topics on marine organisms, including fertilization, cilia and flagella, gene-manupulation, development, self-non-self recognition, evolution, animal behavior, population ecology and marine environment. The teaching staff of Shimoda Marine Research Center will tell you about recent progress of their own research.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Molecular and Cellular Biology Course. Online(partially face-to-face) EG32921 credit holders are ineligible.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EB74111	Plant Physiology I	1	1.0	2, 3	SprAB	Fri1	2B411	Irving Louis John, Furukawa Jun, Miura Kenji, Ono Michiyuki	In this lecture, the relationship between various physiological phenomena and the environmental factors in the life history of higher plant will be overviewed for the understanding from the viewpoint at whole plant to cell levels with adding the latest molecular biological findings.	Lecture is conducted in English. Molecular and Cellular Biology Course. GloBE Course. face-to-face EG24111 credit holders are ineligible.
EB74131	Plant Physiology II	1	1.0	2, 3	FallAB	Fri1	2B411	Iwai Hiroaki, Suzaki Takuya	This lecture introduces several important topics for your further understanding of plant physiology, which includes recent advances in the research of vegetative and reproductive development, and symbiosis with microorganisms in higher plants.	See Syllabus or recent information from manaba for detail. Plant Physiology II (EB74131) Language is Japanese in odd-numbered years and English in even-numbered years. In 2023, the lecture is conducted Japanese. In 2024, the lecture is conducted in English. Students planning to take this course in English should take the course in 2024 or 2026. Molecular and Cellular Biology Course. face-to-face 1-5 : Hiroaki Iwai 6-10 (12 Nov to 17-Dec): Takuya Suzaki
EB74211	Metabolic and Physiological Chemistry I	1	1.0	2, 3	SprAB	Thu1	2B508	Suzuki Iwane	The main topics for this course will be photosynthetic energy conversion, primary and secondary carbon metabolism including C3, C4 and CAM metabolisms, photorespiration, and mitochondrial respiration.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Molecular and Cellular Biology Course. GloBE Course. face-to-face EG24211 credit holders are ineligible.
EB74221	Metabolic and Physiological Chemistry II	1	1.0	2, 3	FallAB	Thu1	2B508	Minoda Ayumi, Irving Louis John	This course provides an overview of metabolism, which supports all life activities. In the first part of the course, we will discuss the following four topics; (1) Catabolism and Anabolism, (2) Energy conversion, (3) Nutrient transport and Assimilation, (4) Regulation of metabolic pathways. At the latter part, we will explore the environmental regulation of photosynthesis (light response, CO2 response) with the goal of understanding plant adaptations to different environments. We are welcome the students who did not take Metabolic Biochemistry Course I.	See Syllabus or recent information from manaba for detail. Lecture is conducted in English. Molecular and Cellular Biology Course. face-to-face Who has credit of EB74231 or EG34231 or EG34221 is ineligible.
EB82131	Chemical Ecology	1	1.0	2, 3	FallAB	Fri4	2C107	Yokoi Tomoyuki, Matsuyama Shigeru, Yamaji Keiko, Kinoshita Natsuko, Kuramitsu Kazumu	This lecture introduces chemical aspects of relationships between individual insects, animals, plants and microorganisms of the same (pheromone) or different (allelochemicals) species.	Lecture is conducted in English. Applied Biology course. face-to-face EB82131 credit holders are ineligible.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EB83141	Plant Biotechnology I	1	1.0	2, 3	SprC	Intensive		Watanabe Kazuo, Kikuchi Akira, Ono Michiyuki	Lectures will cover topics on plant biotechnology including control of flowering time, circadian rhuythms, photoperiodic responses, organ size and responses to environmental stresses.	See Syllabus or recent information from manaba for detail. Open in even number years. Lecture is conducted in English. 7/8, 7/10 Applied Biology course. Online(Asynchronous). Online(Synchronous) Who has credit of EB83111 or EG33111 is ineligible.
EB83161	Biotechnology Literacy	1	1.0	2, 3					Topics covering ethical, legal and social issues in life & environmental sciences.	No online (on-demand) delivery. This course cannot be taken if it clashes with another course with overlapping times. See Syllabus or recent information from manaba for detail. Open in odd number years. Lecture is conducted in English. Applied Biology course. CDP. G-course. Online(partially face-to-face) Who has credit of EB83131 or EG23131 is ineligible.

College of Agro-Biological Resource Sciences

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG40012	Agro-Biological Resource Science, Exercises	2	1.0	1, 2	Sum Vac	Intensive		Yabar Helmut Friedrich	In this course, students improve understanding of future study by exercise and investigation of academic discipline and agenda in agrobiological resource sciences, and presentation of the results.	For English Program Students of the College of Agro-Biological Resource Sciences. Limited to students enrolled since 2020 (excepts students transferred in 2020). Lecture is conducted in English. face-to-face
EG41012	Research Seminar I	2	1.5	4	SprABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who start a graduation research from Spring Semester. Lecture is conducted in English. face-to-face
EG41022	Research Seminar II	2	1.5	4	FallABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who passed EG41012 or EG41032. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG41032	Research Seminar I	2	1.5	4	FallABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For Students who start a graduation research from Fall Semester. Lecture is conducted in English. face-to-face
EG41042	Research Seminar II	2	1.5	4	SprABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who passed EG41012 or EG41032. Lecture is conducted in English. face-to-face
EG41052	Research Seminar I	2	2.0	4	SprABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who start the graduation research from Spring Semester. Lecture is conducted in English. face-to-face
EG41062	Research Seminar II	2	2.0	4	FallABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who passed EG41052 or EG41072. Lecture is conducted in English. face-to-face
EG41072	Research Seminar I	2	2.0	4	FallABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who start a graduation research from Fall Semester. Lecture is conducted in English. face-to-face
EG41078	Graduation Research I	8	3.0	4	SprABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who start the graduation research from Spring Semester. Required a special permission by the Dean of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG41082	Research Seminar II	2	2.0	4	SprABC	by request		Chair and others	Topics in agro-biological resource sciences will be discussed with laboratory members and supervisor.	For students who passed EG41052 or EG41072. Lecture is conducted in English. face-to-face
EG41088	Graduation Research II	8	3.0	4	FallABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who passed EG41098 or EG41078. Required a special permission by the Dean of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG41098	Graduation Research I	8	3.0	4	FallABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For Students who start the graduation research from Fall Semester. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
EG41108	Graduation Research II	8	3.0	4	SprABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who passed EG41098 or EG41078. Lecture is conducted in English. face-to-face
EG41118	Graduation Research I	8	5.0	4	FallABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who start the graduation research from Fall Semester. Required a special permission by the Chair of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG41128	Graduation Research II	8	5.0	4	FallABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who passed EG41118 or EG41138. Required a special permission by the Chair of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG41138	Graduation Research I	8	5.0	4	SprABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who start the graduation research from Fall Semester. Required a special permission by the Chair of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG41148	Graduation Research II	8	5.0	4	SprABC	by request		Chair and others	Each student engages in research work in laboratory on specific theme under supervisor.	For students who passed EG41118 or EG41138. Required a special permission by the Chair of the college of Agro-Biological Resource Sciences. Lecture is conducted in English. face-to-face
EG50011	World Food and Agriculture	1	1.0	1	SprAB	Mon2	2C102	Kang Seung Won	This course introduces crop plants, domestic animals and their production in the world, in relation to economic and environmental issues.	Lecture is conducted in English. face-to-face
EG50041	Biochemistry	1	2.0	2, 3	SprAB	Thu4,5		Kimura Keiji,Kusano Miyako,Takeshita Norio,Yanagisawa Hiromi	Advanced biochemistry covers a wide area including molecular cell biology, molecular genetics, biotechnology, metabolism, and relates all current biological sciences. In this year, experts of three major classes of the organisms (microorganisms, plants, animals) give lectures from the professional points of view. This course provides an introduction to biochemistry for the undergraduates who are able to learn basic to applied knowledge of life and environmental sciences.	Lecture is conducted in English. Online(Asynchronous)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG50061	Vegetation Ecology	1	1.0	2, 3	FallC	Intensive		Kawada Kiyokazu, Tsuda Yoshiaki, Tsumura Yoshihiko, Kamijo Takashi	Vegetation is a basic component that characterizes land areas and needs to be properly understood in order to realize sustainable use of biological resources. The purpose of this lecture is to understand the basics of vegetation and to understand the sustainable use of vegetation. The lecture will cover not only Japanese vegetation but also vegetation throughout the world such as tropical forests and deserts.	Lecture is conducted in English. face-to-face
EG50163	Fundamental Chemistry Laboratory	3	1.0	2	FallAB	Fri4-6	2B201, 2B203, 2B303	Yamada Kosumi, Shigemori Hideyuki, Ishida Junji, Ogawa Kazuyoshi, Nakagawa-Izumi Akiko, Nomura Nakao, Yang Yingnan, Nagumo Yoko, Masuo Shunsuke, Miyamae Yusaku	Chemical substances are existed around and within us everyday and everywhere. We will provide the students inorganic, physicochemical, and organic chemical property of them through the experiments. The students should be able to 1) separate, isolate, and identify chemical substances, 2) learn physicochemical property of them by analytical equipment, 3) know how to use labware and analytical equipment	Date and venue for orientation of G30: TBA; Number of G30 students are limited to 12. Identical to EC12163. 10/4-11/1, 11/15-11/22 face-to-face
EG50193	Fundamental Biology Laboratory	3	1.0	2	FallBC	Fri4-6	2B301, 2B303, 2D315, 2D316	Nomura Koji, Kinoshita Natsuko, Yawata Yutaka, Daitoku Hiroaki, Hagiwara Daisuke, Hirakawa Hidehiko, Takeshita Norio, Matsuyama Shigeru	生物学の各分野から、生物資源学類に必要な観察・実験の項目を選んで実施し、生命現象の基本について理解させる。	Class enrollment onto TWINS should be done by the end of September. Identical to EC12173. 12/6-12/20, 12/6-12/20, 12/6-12/20, 1/10-2/7, 1/10-2/7, 1/10-2/7 face-to-face
EG60012	Current Topics in Plant Biology	2	1.0	2, 3	FallC	Mon3, 4	2B207	Kinoshita Natsuko	This class will focus on current developments in plant biology by focusing on current, groundbreaking research shaping the field. Topics will differ each year. Topics may include herbivory stress, abiotic stress, chemical ecology, plant communication, bio imaging, synthetic biology, and precision agriculture. Students will read as well as lead discussions about current literature. Novel experimental techniques used to answer central questions will be emphasized. There will be a final project where students present a topic of personal interest related to the literature covered in the class. This course is recommended for students considering graduate work or independent study in related fields. The class will be taught in Japanese and English in alternate years.	Same as EC31012 The class will be taught in Japanese and English in alternate years. Open in even number years. Open in even number years. Lecture is conducted in English. face-to-face
EG60022	Seminar in Biosystems Engineering and Technology	2	3.0	3, 4	FallABC	Mon2, 3	2D307	Kitamura Yutaka, Neves Marcos Antonio, Tofael Ahamed, Nakajima Mitsutoshi	生物資源の利活用における技術や工学の体系すなわちBiosystems Engineeringに関する専門的かつ最新の研究や知見を，論文の概要作成やプレゼンテーションなどの演習を通じて学習する。	授業の多くを京都大学・国立台湾大学との共同・オンライン（英語）により行う。EC33682を修得済みの者は履修できない。 Identical to EC33692. Lecture is conducted in English. distance learning. face-to-face
EG60023	International Training of Agriculture III	3	2.0	1 - 3	Annual	by appointment		Nomura Nakao	Field study program in European countries under 3 objectives; 1) To learn overview on agriculture and related industries 2) To discuss current issues related agriculture through seminars with local students 3) Field survey of the agricultural sites in the local areas	(インターンシップ)国外。 履修登録は事務で行う。 Identical to EC41133. Lecture is conducted in English. CDP. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60033	International Training of Agriculture IV	3	2.0	1 - 3					Field study program in North America under 3 objectives; 1) To learn overview on agriculture and related industries 2) To discuss current issues related agriculture through seminars with local students 3) Field survey of the agricultural sites in the local areas	(インターンシップ)国外。ユタ州立・スノー大学等における短期研修。 Identical to EC41143. Not open in 2024. CDP. face-to-face
EG60043	Agricultural Internship Abroad V	3	2.0	1 - 3	Annual	by appointment		Kawada Kiyokazu	乾燥地域の協定校および企業等において、講義・体験実習・野外調査を通じて当該国における農業の特色及び地域性などを学び、さらに現地の学生・教員・企業者との交流を通じて国際的な視野に立ったキャリア意識を育成する。	(インターンシップ)国外。 Identical to EC41153. Lecture is conducted in English. face-to-face
EG60053	Agricultural Internship Abroad VI	3	2.0	1 - 3	Spring Semester Fall Semester	by appointment		Abe Junichi P.	ASEAN諸国等の協定校及び企業等において、講義・体験実習・野外調査を通じて当該国における農業の特色及び地域性なとを学び、さらに現地の学生・教員・企業者との交流を通じて国際的な視野に立ったキャリア意識を醸成する。	(インターンシップ)国外。 Identical to EC41163. Lecture is conducted in English. face-to-face
EG60063	International Training of Agriculture I	3	2.0	1 - 3	Sum Vac	Intensive		Nomura Nakao	Field study program in foreign countries under 3 objectives; 1) To learn overview on agriculture and related industries 2) To discuss current issues related agriculture through seminars with local students 3) Field survey of the agricultural sites in the local areas	(インターンシップ)国外。 履修登録は事務で行う。生物資源学類生優先 Identical to EC41013. Lecture is conducted in English. CDP. face-to-face
EG60071	Food Functionality	1	1.0	3, 4	FallC	Tue5,6	2B309	Isoda Hiroko,Ferdousi Farhana	Lectures will cover the topics in advanced food functionality including anti cancer, anti allergy, anti stress, anti obesity, neuronal regulation, melanogenesis regulation and the bioavailability of functional food factors.	Same as EC31391 Lecture is conducted in English. face-to-face
EG60101	Soil Science	1	2.0	3, 4	FallB	Intensive		Asano Maki	Fundamental ascpects of soils with regard to their genesis, physicochemical properties, management and the related environmental issues will be lectured, and the discussion on some selected topics will be treated as more advanced understanding of present status of soils in the changing world.	Same as EC32161 Lecture is conducted in English. face-to-face
EG60111	Environmental Ecological Engineering	1	1.0	3	FallAB	Wed3	2C404	Nomura Nakao	Lecture covers eco-engineering technologies to restore deteriorated environments including following major existing issues; 1) Rehabilitation of enclosed water bodies in terms of water and sediment quality improvement, 2)Biomass energy as a renewable energy and its effect on reduction of green house gas emission, 3) Impact of aquacultural industries on coastal environment including mangrove forest.	横断領域科目「環境」 Identical to EC32111. Lecture is conducted in English. face-to-face
EG60121	Food Process Engineering	1	1.0	3, 4	SprAB	Wed3	2G305	Neves Marcos Antonio,Kokawa Mito	This course introduces basic principles of fluid flow, heat transfer, and mass transfer phenomena, along with the application of these principles to the unit operations most commonly used in food processing, such as thermal processing, cooling, freezing, centrifugation, filtration, drying, size reduction and emulsification.	Same as EC42021 Lecture is conducted in English. face-to-face
EG60161	Environmental Colloid Engineering	1	1.0	3, 4	SprBC	Intensive		Kobayashi Motoyoshi	Applications of colloid and interface science to environmental issue and its basis are given. Focus will be placed on the floccuation which is important to control soil and water quality. Current topics related to microbiology and ecosystem will be lectured.	Lecture is conducted in English. face-to-face
EG60191	Biomass Conversion	1	2.0	3, 4	SprC	Intensive		Yang Yingnan	This course is designed to help you develop and understanding of the complex processes of biomass conversion. Lectures and discussions will focus on biomass sources, biomass conversion technology and process.	Limited to English Program students. Open in odd number year. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60232	Seminar in Applied Biological Chemistry	2	2.0	3, 4					The purpose of the course is to introduce and discuss the applied life sciences related to biochemistry of plant molecules, molecular and developmental biology, biology for gene regulations, ecological molecular microbiology, biomimetic chemistry, bioreaction engineering.	Open in odd number years. Lecture is conducted in English. face-to-face Not open in 2023
EG60252	Seminar in Agricultural Economics and Sociology	2	2.0	3, 4	Annual	by appointment		Shuto Hisato	This course aims to introduce the present issues of agricultural and forestry economics, and discuss the roles of rural society, farm management and forestry planning.	Students who are supervised by faculties in the Course of Agriculture and Forestry Social Sciences are eligible to enroll. Lecture is conducted in English. face-to-face
EG60272	Seminar in Quantitative Food Economics	2	2.0	2, 3	FallC	Mon3-6	2C407	Shuto Hisato	Exercises in estimation of food production and consumption based on economic theories, and discussions are performed to analyze the factors controlling supply and demand of foods.	Lecture is conducted in English. face-to-face
EG60361	Introductory Microbiology	1	1.0	2, 3	FallC	Thu3,4	2G205	Utada Andrew Shinichi	This lecture will introduce you basic microbiology including: 1, Diversity of microorganisms 2, Cell-structures 3, Metabolisms 4, Genetics 5, Their use in our life	Lecture is conducted in English. face-to-face
EG60401	Economics of Resource and Environment	1	2.0	3, 4	SprAB	Thu3,4	2C404	Shuto Hisato	Lectures will cover the topics in agricultural economy and resouce and environment including forest.	Open in even number years. Lecture is conducted in English. face-to-face
EG60411	Biomaterial Science	1	1.0	3, 4	FallAB	Tue2	2G305	Enomae Toshiharu,Nakagawa-Izumi Akiko,Obataya Eiichi	Fundamentals and applications of paper science and papermaking engineering will be provided and they cover chemical structures of polysaccharides constituting fibers, pulping methods for extracting fibers from wood, papermaking technology such as beating, forming, calendering and coating, and geometrical, mechanical, optical, water-related properties of paper as well as biomass plastics to replace petroleum-resourced plastics and latest research topics.	Lecture is conducted in English. face-to-face. interdepartmental course
EG60421	Soil and Water Bio-Engineering	1	1.0	3	SprC	Intensive		Yamashita Yuji,Yuan Tian	The course will be aimed at undergraduates and focus on discussing the science, technology and engineering for achieving sustainable soil and water systems. We will cover several important, emerging topics related to bio-technologies and bio-engineering for sustainable soil and water management. This course also covers a wide range of sectors of major concern in the development of bioengineering, including green energy, green water supply, green manufacturing, green agriculture, and green tourism / ecosystem service, from the perspective of soil-water nexus. This course generally covers three parts, namely (1) implementation of green sciences, (2) deployment of green technology and engineering, and (3) development of green services and its challenges.	It is recommended to take EG60161 together with this subject due to complementarity. EG60491 will also be helpful to understand this subject. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60491	Elementary Applied Thermodynamics	1	1.0	2, 3	SprAB	Mon4	2C107	Utada Andrew Shinichi	Thermodynamics is one of most fundamental subject when biological and envieromental issues are treated. In this lecture, the elementary thermodynamics will be explained with an orientation toward an application in life and environmental science. Lecture will start the concept of equilibrium system with an example of Brownian motion. It will be followed by the first and the second law of thermodynamics. Thermodynamic function, the concept of Gibbs free energy, chemical potential. Many example will be cited from the field of Colloid and Interface Science. Those, who want to join the lecture of environmental colloid engineering are strongly recommended to join this lecture.	Lecture is conducted in English. face-to-face
EG60551	Water Resources Management Engineering	1	1.0	3, 4	SprC	by appointment		Ishii Atsushi	This lecture aims to provide a fundamental understandings of water resources by giving introductory hydraulics and hydrology, natures of river flow, water use in various sectors with a special focus on irrigation, water resources development and management, hydrologic statistics, as well as institutional system for water.	Students are graduating on 31 Aug. have to contact an instructor. Lecture is conducted in English. face-to-face. interdepartmental course
EG60561	Water Environmental Management Technology	1	1.0	3	SprC	by appointment		Nomura Nakao	Lecture covers ecological technologies to restore water environments in enclosed water bodies with deteriorated sediment and water quality. Lecture also covers a case study of Lake Kasumigaura Water Renovation Project where several research studies was performed to rehabilitate water environment in large scale.	横断領域科目「環境」. 特別聴講学生(CiCプロジェクト参加学生を含む)のみ履修可. Cross-disciplinary subjects 「Environment」.Limited to Exchange Student (Tokubetsu Chokogakusei) including CiC Project. Lecture is conducted in English. face-to-face
EG60571	Introduction to Industrial Ecology	1	1.0	3	SprAB	Tue2	2G205	Yabar Helmut Friedrich	One of the biggest challenges societies face is decoupling economic growth from environmental pressure within the limits of the earth's carrying capacity. The highly inefficient use of natural resources from extraction to final disposal produces wastes and releases to air, water and soil. This course introduces the mechanisms and tools necessary to overcome this challenge through Industrial Ecology (IE). IE focuses on promoting industrial activities similar to processes in nature. This is achieved by optimizing energy and material resource use while minimizing and/or avoiding waste and pollution release. The course outlines the tools to achieve this goal including resource use optimization through the 3R Initiative, Life Cycle Assessment, and Material Flow Analysis. The course will also address the technical and management aspects including Environmental Management Systems, Cleaner Production and Design for Environment. At the end of the course the student will develop analytical skills and learn the tools necessary to design and implement solutions to the current production and consumption patterns.	Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60581	Animal Cell Culture Technology	1	1.0	3	SprAB	Fri3	2C407	Nomura Nakao	Lectures cover basic knowledge about animal cell culture(cell cycle, growth factors, extra-cellular matrixes, cancer cells) as well as application of cultured animal cells(hybrid artificial organ, production of monoclonal antibodies, alternative for experimental animals). Lectures also provides basic information about biotechnological approached for setting up animal cell bioreactors.	Identical to EC32071. face-to-face
EG60601	Food and Nutritional Chemistry II	1	1.0	3, 4					The aims of this course are to understand i) physiological functions of nutrients such as carbohydrates, lipids, and proteins, ii) regulation of their metabolism, iii) relation of metabolic syndrome with exercise, overnutrition, and biological clock.	Same as EC32241 English Program Students who had received credits from EG60081 are not allowed. Not offered from 2024. Open in odd number years. Lecture is conducted in English. Not open in 2024. face-to-face
EG60611	International Agricultural and Forestry Policies I	1	1.0	2, 3	Sum Vac	Intensive		Shuto Hisato,Hagiwara Hideki,Asai Masayasu	Lectures will cover the topics in policies for agriculture, food, forestry, and environmental management related to agriculture and forestry in the world.	English Program Students who had received credits from EG60201 are not allowed. Open in even number years. Identical to EC34281. Lecture is conducted in English. Work Experience faculty. face-to-face
EG60621	International Agricultural and Forestry Policies II	1	1.0	2, 3					Lectures will cover the topics in policies for agriculture, food, forestry, and environmental management related to agriculture and forestry in the world.	English Program Students who had received credits from EG60201 are not allowed. Open in odd number years. Identical to EC34381. Lecture is conducted in English. Work Experience faculty. face-to-face
EG60631	Satellite Remote Sensing	1	1.0	2 - 4	FallC	Tue3,4	3D207	Nasahara Kenlo	Satellite remote sensing is a technology to observe Earth by artificial satellites in the space. We learn overview of its basics and its recent outcomes which highlight the escalating risks of the global environment changes.	Lecture is conducted in English. face-to-face
EG60641	Precision Agriculture Technology	1	1.0	2, 3	SprAB	Fri5	2D206	Tofael Ahamed	Lectures will cover the topics of precision agricultural technology. Recent advancements in the agricultural field of automation, satellite remote sensing, and GIS. The Bigdata analytics, IoT in agriculture and machine learning systems are used in medium to large scale of agricultural production. The outdoor agricultural mechanization to indoor plant growth monitoring and machinery utilization are the core subjects of this course. Through this course students will get exposure of large satellite remote sensing systems for agriculture, UAV-based crop monitoring and IoT advancements in agriculture.	Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60651	Organic Chemistry	1	3.0	2	Annual	Tue1	2C410	Kajiyama Mikio	Basic structure and reactions of organic compounds are explained on the electronic theory.	Participation is permitted from spring semester of freshman. Lecture is conducted in English. face-to-face. interdepartmental course
EG60661	Renewable Energy and Bioresource Recycling Technologies	1	2.0	3	FallAB	Fri3,4	2D307	Kitamura Yutaka,Neves Marcos Antonio,Lei Zhongfang,Nakajima Mitsutoshi,Yuan Tian	As a part of advanced use for biological resources, we will explain the conversion and utilization technology of biomass to energy and materials. We will also overview the latest technologies and diffusion trends on renewable energy and consider constructing a resource recycling society utilizing renewable energy.	国立台湾大学とのジョイント講義(一部遠隔授業)。「バイオマス資源循環工学」(EC33281)及び「グリーンエネルギー工学」(EC33041)を修得済みの者は履修できない。 Identical to EC33651. Lecture is conducted in English. face-to-face
EG60663	Fundamental Environmental Engineering Laboratory	3	1.0	2	SprAB	Fri5,6	2D110-1	Nakagawa-Izumi Akiko,Utsumi Motoo,Kobayashi Motoyoshi,Neves Marcos Antonio,Mizunoya Takeshi,Yabar Helmut Friedrich,Lei Zhongfang,Kajiyama Mikio,Ishii Atsushi,Yang Yingnan,Sugimoto Takuya,Yuan Tian,Kokawa Mito,Obataya Eiichi,Asada Yohei,Yamashita Yuji,uchida tarou,Yamakawa Yosuke	水,土,圃場,森林,大気などの生産環境やバイオマス,食品などの生物資源を対象として,これらの特性を明らかにする諸理論,試験,計測,解析のための基礎的手法を理解・習得する。また実験を通じて,環境工学的なアプローチや科学技術研究における問題の発見とその解決のための実践的能力を養成する。 This course aims to provide basic concepts of environmental engineering necessary to analyze various phenomena present in environments, biomass, or bioresources.	生物資源学類生に限る(受入上限数30名)。「計測工学実験」(EC23113)、EC23113、EC23123を修得済みの者は履修できない。 Identical to EC23133. face-to-face
EG60671	Food Safety Control and Quality Evaluation	1	2.0	3	FallAB	Wed5,6	2D307	Kitamura Yutaka,Neves Marcos Antonio,Utsumi Motoo,Kokawa Mito,Nakajima Mitsutoshi	農産物や食品の物理・生化学的特性, 健康機能性および加工流通のためのポストハーベスト・食品加工の技術を学習する。また食品の安全安心のための基礎知識やマネージメントシステム, 関係法令や認証制度についても解説する。	国立台湾大学とのジョイント講義(一部遠隔授業)。「食品衛生学」(EC33071)、「食品機械工学」(EC33081)、「食品機能品質評価学」(EC33091)及び「食品衛生管理と品質評価学」(EC33661)を修得済みの者は履修できない。(コース共通)環境工学コース　社会経済学コース Identical to EC35091. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG60681	Contemporary Concepts of Inheritance	1	1.0	3, 4	FallAB	Thu2	2B207	Buzas Diana Mihaela	More than a century after Darwin and Mendel, and half a century after the discovery of DNA, the idea that biology is dominated by genes is being challenged. Instead, what is experienced within a generation (“the environment”) could also affect what is carried the next generation, as predicted early on by Lamarck. To create an outlook of the current ideology around inheritance, this course introduces the molecules and operating principles in genetic and epigenetic inheritance while looking at the methodological strategies leading to their discovery (especially role of model systems). The phenomena exemplified will expose a variety of aspects, from technologies currently penetrating into the society (PCR, CRISP CAS9 etc), issues of high interest (human evolution and disease, genetically modified crops etc) all the way to hypothetical views on new areas where epigenetic inheritance plays a role (especially human culture)and ethics.	Students in any departemnt (even outside biology) can take the course. Limited to 30 students. Lecture is conducted in English. face-to-face
EG60691	Systems Biotechnology	1	1.0	3	SprC	Tue3,4	2C403	Ying Beiwen,Utada Andrew Shinichi,Takeshita Norio	Students will learn principles, techniques, and applications for the quantitative understanding of living microorganisms and will acquire interdisciplinary knowledge and technologies spanning biology, engineering, computer and data science.	Identical to EC32201. face-to-face

College of Geoscience

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG70013	Laboratory Work in Basic Geoscience	3	1.0	1	SprAB	Thu4,5	1D109	Doan Quang Van,Fujino Shigehiro,Yamanaka Tsutomu,Tanaka Kohei,Matsui Keisuke,Yamashita Akio,Ikehata Kei,Kyono Atsushi,Kurosawa Masanori,Maruoka Teruyuki,Ikeda Atsushi	In this experiment, students learn basic methods and techniques for studying the geosciences through practical training in a variety of fields.	Lecture is conducted in English. face-to-face This class may be switched from face-to-face to online depending on the spread of infection and immigration status.
EG70021	Introduction to Geoenvironmental Science	1	1.0	1	FallAB	Fri1	2C407	Sugita Michiaki,Hattanji Tsuyoshi,Morimoto Takehiro,Kato Hiroaki,Kureha Masaaki,植田宏昭他,Kusaka Hiroyuki	Earth's environment is the main topic of this lecture. Emphasis is on the geoscientific aspects and features in the atmosphere, hydrosphere, topography, and human society among others are discussed.	Lecture is conducted in English. face-to-face Face-to-face
EG70031	Introduction to Earth Evolution Science	1	1.5	1	FallABC	Tue1	2C101	Kyono Atsushi,Ujiie Kohtaro,Yagi Yuji,Okuwaki Ryo,Kamata Yoshihito,Tsunogae Toshiaki,Fujino Shigehiro,Maruoka Teruyuki,Tanaka Kohei,Agematsu Sachiko	This lecture introduces 4.6 billion years evolution of the earth, mainly focusing on the evolution of solid earth, and the birth and evolution of life.	Lecture is conducted in English. face-to-face This class is taught by several teachers. This class may be switched from face-to-face to online depending on the spread of infection and immigration status.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG90211	Natural Hazards	1	1.0	2, 3					This lecture overviews various natural hazards and their triggers, reviews historical and recent hazards and explores future prediction and mitigation against possible hazards.	「地球環境学A」、「地球環境学B」、または「地球進化学A」、「地球進化学B」を履修していること。内容については英語のシラバス参照。 Open in odd number years. Lecture is conducted in English. G-course. face-to-face
EG91011	Lecture on Geographical Information Systems	1	1.0	2, 3	FallC	Thu1, 2	1D301-1	Morimoto Takehiro, Yamashita Akio, Tsutsumi Jun	This course introduces fundamentals of Geographical Information Systems and its application to geography.	Open in even number years. Lecture is conducted in English. face-to-face
EG91081	Environmental Hydrology	1	1.0	2, 3	SprAB	Wed6	2D205	Asanuma Jun, Tsujimura Maki, Yamanaka Tsutomu, Sugita Michiaki	Basics on the hydrologic cycle are introduced. In addition, hydrologic aspects on environmental problems and ecology are discussed.	Prerequisite: Introduction to Geoenvironmental Science (or permission by the instructor). Priority for degree students of the School of Life and Environmental Sciences. Students, who attended EG91091, are not permitted. Course is held online (Microsoft Teams, synchronous & asynchronous). Lecture is conducted in English. Online(Synchronous) 試験のみ対面。
EG91101	Meteorology and Climatology	1	1.5	2, 3	SprABC	Wed1	2C310	Ueno Kenichi, Kamae Yoichi, Doan Quang Van	Elementary course about the general circulation of the atomosphere and the energy budget, mechanism of climate and and climate change, weather forecasting and precipitation, interactions of the atmospheric environment and human activities.	Offered in even number years. Students, who attended EG91031, are not permitted. Open in even number years. Lecture is conducted in English. face-to-face
EG91141	Human and Regional Geography	1	1.5	2, 3	FallABC	Thu4	2D305	Matsui Kenichi, Matsui Keisuke, Kubo Tomoko	This course introduces subjects and fundamentals of the human and regional geography by presenting actual examples of Japan and other regions of the world. Following the introduction of basic concepts of human geography, features of various regions will be explained from viewpoints of rural, urban, commercial, political, religious, recreational and ethic geographies.	Students, who attended EG80011, are not permitted. Lecture is conducted in English. face-to-face(partially online)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG91161	Process Geomorphology	1	1.0	2, 3					This lecture focuses on physical processes that create and maintain landforms. Tectonic, glacial, fluvial and coastal processes, and weathering as well as mass movements are mainly discussed.	Offered in odd number years. Prerequisite: Both of "Introduction to Geoenvironmental Science" and "Introduction to Earth Evolution Science". Students, who attended EG91131, are not permitted. Open in odd number years. Lecture is conducted in English. face-to-face(partially online)
EG91171	Basic Analysis of Environmental Dynamics	1	1.5	2, 3	SprABC	Tue5	2B309	Onda Yuichi, 津旨大輔, Matsushita Bunkei, Kato Hiroaki, Takahashi Junko	This lecture provides basic knowledge for analyzing environmental dynamics. In addition, the present state of environmental problems and its analysis methods are discussed.	Offered in even number years. Open in even number years. Lecture is conducted in English. face-to-face
EG91191	Landslides	1	1.0	2, 3	SprAB	Fri1	2B206	Parkner Thomas	This lecture covers the basics of landslides in geomorphic systems including (in)stability concepts and process types. Remote sensing techniques for landslide assessment are also introduced.	Offered in even number years. Students, who attended EG91181, are not permitted. Open in even number years. Lecture is conducted in English. face-to-face
EG91203	Field Work in Geoenvironmental Science I	3	1.5	2, 3					The goal of this course is to provide experience and background in a variety of field methods used by researchers in geoenvironmental sciences. The course will focus on hands-on field techniques for data gathering (observation, measurement, and others), mapping, and data analysis.	Offered in 2025. This course is offered every 3 years. Prerequisite: EG70013, EG70021 and EG91081. Permission by teachers. Lecture is conducted in English. 10/1-11/10, 11/11-12/28, 1/1-2/16, 2/17-3/31 face-to-face Open every 3 years since 2022. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG91213	Field Work in Geoenvironmental Science II	3	1.5	2, 3					The goal of this course is to provide experience and background in a variety of field methods used by researchers in geoenvironmental sciences. The course will focus on hands-on field techniques for data gathering (observation, measurement, and others), mapping, and data analysis.	Offered in 2025. This course is offered every 3 years. Permission by teachers. Lecture are conducted in English. Limited undergraduate students who have earned credits of Introduction to Geoenvironmental Science, Introduction to Earth Evolution Science, Laboratory Work in Basic Geoscience. Open every 3 years since 2022. Lecture is conducted in English. face-to-face
EG91223	Field Work in Geoenvironmental Science III	3	1.5	2, 3					The goal of this course is to provide experience and background in a variety of field methods used by researchers in geoenvironmental sciences. The course will focus on hands-on field techniques for data gathering (observation, measurement, and others), mapping, and data analysis.	Offered in 2023. This course is offered every 3 years. Permission by teachers. Open every 3 years since 2023. Lecture is conducted in English. face-to-face
EG91233	Field Work in Geoenvironmental Science IV	3	1.5	2, 3						Offered in 2023. This course is offered every 3 years. Prerequisite: EG91051 Geomorphology and EG91161 Process Geomorphology. Priority for degree students of the School of Life and Environmental Sciences. Others by permission of the instructor. Limited to several students. Open every 3 years since 2023. Lecture is conducted in English. face-to-face
EG91243	Field Work in Geoenvironmental Science V	3	1.5	2, 3	Annual	Intensive		Tsutsumi Jun, Yamashita Akio	The goal of this course is to provide experience and background in a variety of field methods used by researchers in geoenvironmental sciences. The course will focus on hands-on field techniques for data gathering (observation, measurement, and others), mapping, and data analysis.	Offered in 2024. This course is offered every 3 years. Prerequisite: Human and Regional Geography. Permission by teachers. Lectures are conducted both in English and Japanese. Open every 3 years since 2024. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
EG91253	Field Work in Geoenvironmental Science VI	3	1.5	2, 3	Annual	Intensive		Onda Yuichi,津旨大輔,Matsushita Bunkei,Kato Hiroaki,Takahashi Junko	The goal of this course is to provide experience and background in a variety of field methods used by researchers in geoenvironmental sciences. The course will focus on hands-on field techniques for data gathering (observation, measurement, and others), mapping, and data analysis.	Offered in 2024. This course is offered every 3 years. Permission by teachers. Open every 3 years since 2024. Lecture is conducted in English. face-to-face
EG92011	Mineralogy and Petrology	1	1.0	2, 3	FallAB	Wed3	2B207	Tsunogae Toshiaki,Kurosawa Masanori	This lecture provides basic knowledge for various minerals and rocks in the earth's surface and interior. Main purposes are to learn classification, basic principles and processes of the formations of the minerals and rocks (mainly igneous and metamorphic rocks) in the earth.	Open in even number years. Lecture is conducted in English. face-to-face Classes may be switched from face-to-face to online depending on the spread of infection and immigration status.
EG92021	Inorganic Geochemistry	1	1.0	2, 3					This course aims to introduce students to the chemical feature of our planet and basic principles for geochemistry and mineral chemistry.	Open in odd number years. Lecture is conducted in English. face-to-face
EG92031	Stratigraphy and Paleontology	1	1.0	2, 3	FallAB	Tue2	2B207	Tanaka Kohei,Kamata Yoshihito,Fujino Shigehiro	This lecture provides basic knowledge for sedimentology and paleontology and historical geology. Main purposes are to learn interrelationship between life and environment of geological time.	Open in even number years. Lecture is conducted in English. face-to-face
EG92041	Applied Structural Geology	1	1.0	2, 3					Structural geology and seismology with emphasis on its application side is the main topics of this lecture.	Open in odd number years. Lecture is conducted in English. face-to-face
EG92093	Field Work in Earth Evolution Science E	3	1.5	2, 3					In this field course students acquire basic field methods on geological science such as field description and mapping in a particular area.	The professor in charge, schedule, and place of the excursion will be announced as soon as they are decided. Prerequisite: Introduction to Geoenvironmental Science, Introduction to Earth Evolution Science, Laboratory Work in Basic Geoscience. Or permission by teachers. Open every 4 years since 2022. Lecture is conducted in English. Not open in 2024. Including field survey. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG92103	Field Work in Earth Evolution Science F	3	1.5	2, 3					In this field course students acquire basic field methods on geological science such as field description and mapping in a particular area.	The professor in charge, schedule, and place of the excursion will be announced as soon as they are decided. Prerequisite: Introduction to Geoenvironmental Science, Introduction to Earth Evolution Science, Laboratory Work in Basic Geoscience. Or permission by teachers. Open every 4 years since 2023. Lecture is conducted in English. Not open in 2024. Including field survey. face-to-face
EG90111	Topics on Earth Evolution Science A	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Earth Evolution Science.	Scheduled to be offered 2025. Open every 4 years since 2021. Lecture is conducted in English. Not open in 2024. face-to-face
EG90121	Topics on Earth Evolution Science B	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Earth Evolution Science.	Scheduled to be offered in 2027. Open every 4 years since 2023. Lecture is conducted in English. Not open in 2024. face-to-face
EG90131	Topics on Geoenvironmental Science A	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Geoenvironmental Science.	Offered in 2026. Open every 4 years since 2022. Lecture is conducted in English. face-to-face
EG90141	Topics on Geoenvironmental Science B	1	1.0	2 - 4	Annual	Intensive			This course introduces knowledge and recent developments on specific topic(s) in Geoenvironmental Science.	Offered in 2024. Open every 4 years since 2024. Lecture is conducted in English. face-to-face
EG90151	Topics on Geoscience A	1	1.0	3, 4	SprB	Intensive		Parkner Thomas	Students get in contact with the scientific community by attending the Japan Geoscience Union Meeting 2024 (5/26-31).	For Geoscience English program students only. Course is held hydrid (on-site and online). Lecture is conducted in English. face-to-face(partially online)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
EG90161	Topics on Geoscience B	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Geoscience.	Scheduled to be offered in 2025. Priority for Geoscience English program students. Students other than English program by permission of instructor. Up to 20 students. Open every 4 years since 2021. Lecture is conducted in English. Not open in 2024. face-to-face
EG90171	Topics on Geoscience C	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Geoscience.	Scheduled to be offered in 2027. Priority for Geoscience English program students. Students other than English program by permission of instructor. Up to 20 students. Open every 4 years since 2023. Lecture is conducted in English. Not open in 2024. face-to-face
EG90181	Topics on Geoscience D	1	1.0	2 - 4					This course introduces knowledge and recent developments on specific topic(s) in Geoscience.	Scheduled to be offered in 2026. Priority for Geoscience English program students. Students other than English program by permission of instructor. Up to 20 students. Open every 4 years since 2022. Lecture is conducted in English. Not open in 2024. face-to-face
EG90191	Topics on Geoscience E	1	1.0	2 - 4	Annual	Intensive			This course introduces knowledge and recent developments on specific topic(s) in Geoscience.	Scheduled to be offered in 2024. Priority for Geoscience English program students. Students other than English program by permission of instructor. Up to 20 students. Open every 4 years since 2024. Lecture is conducted in English. face-to-face
EG90303	Internship Program in Geoscience	3	2.0	2 - 4	Annual	by appointment		Kato Hiroaki,Agematsu Sachiko	Students have the opportunity to evaluate their own abilities and aptitudes through experiences at companies, research institutes, non-profit organizations, etc. The conditions for receiving credit include an agreement between the company and the school before the internship begins and a report from the company after the internship is completed. Students should register for the internship program after receiving informal consent from the company.	For Geoscience English program students. Lecture is conducted in English. CDP. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
EG92053	Field Work in Earth Evolution Science A	3	2.0	2, 3	FallABC	Intensive		Kamata Yoshihito	This class is a joint field excursion with students from Chulalongkorn University in Thailand. You observe strata and rocks on the continental block and compare them with Japanese rocks typical of subduction zones.	Open in even number years. Lecture is conducted in English. face-to-face
EG92063	Field Work in Earth Evolution Science B	3	2.0	2, 3					An excursion to observe accretionary and volcanic rocks representing subduction zones is held in Japan. Students from Chulalongkorn University in Thailand also participate in this class, and students discuss the differences in geology between the two countries.	Open in odd number years. Lecture is conducted in English. Not open in 2024. face-to-face
EG92073	Field Work in Earth Evolution Science C	3	1.5	2, 3	Annual	Intensive			In this field course students acquire basic field methods on geological science such as field description and mapping in a particular area.	The professor in charge, schedule, and place of the excursion will be announced as soon as they are decided. Prerequisite: Introduction to Geoenvironmental Science, Introduction to Earth Evolution Science, Laboratory Work in Basic Geoscience. Or permission by teachers. Open every 4 years since 2024. Lecture is conducted in English. Including field survey. face-to-face
EG92083	Field Work in Earth Evolution Science D	3	1.5	2, 3					In this field course students acquire basic field methods on geological science such as field description and mapping in a particular area.	The professor in charge, schedule, and place of the excursion will be announced as soon as they are decided. Prerequisite: Introduction to Geoenvironmental Science, Introduction to Earth Evolution Science, Laboratory Work in Basic Geoscience. Or permission by teachers. Open every 4 years since 2021. Lecture is conducted in English. Not open in 2024. Including field survey. face-to-face
EG71002	Seminar on Geoscience A	2	1.5	3	SprC	by appointment		Parkner Thomas	This class provides an overview on all laboratories of the College of Geoscience. Topics on all geoscience desciplines are discussed with members of each laboratory. Students identify 1-2 laboratories of their main interest.	For Geoscience English program students who start their Seminar on Geoscience in spring. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG71012	Seminar on Geoscience B	2	1.5	3	FallABC	by appointment		Parkner Thomas	In this class further information and discussion is provided on the laboratories identified by students in Seminar of Geoscience A. At the end of this class the laboratory for Graduation Research is identified.	For Geoscience English program students who started their Seminar on Geoscience A in spring. Lecture is conducted in English. face-to-face
EG71022	Seminar on Geoscience A	2	1.5	3	FallC	by appointment		Parkner Thomas	This class provides an overview on all laboratories of the College of Geoscience. Topics on all geoscience desciplines are discussed with members of each laboratory. Students identify 1-2 laboratories of their main interest.	For Geoscience English program students who start their Seminar on Geoscience in fall. Lecture is conducted in English. face-to-face
EG71032	Seminar on Geoscience B	2	1.5	3	SprABC	by appointment		Parkner Thomas	In this class further information and discussion is provided on the laboratories identified by students in Seminar of Geoscience A. At the end of this class the laboratory for Graduation Research is identified.	For Geoscience English program students who started their Seminar on Geoscience A in fall. Lecture is conducted in English. face-to-face
EG71102	Research Seminar A	2	1.5	4	SprABC	by appointment		Parkner Thomas, Dean and others	Topics on geoscience are discussed with members of a laboratory.	For Geoscience English program students who start their Research Seminar in spring. Lecture is conducted in English. face-to-face
EG71112	Research Seminar B	2	1.5	4	FallABC	by appointment		Parkner Thomas, Dean and others	Topics on geoscience are discussed with members of a laboratory.	For Geoscience English program students. Prerequisite: Research Seminar A. Lecture is conducted in English. face-to-face
EG71122	Research Seminar A	2	1.5	4	FallABC	by appointment		Parkner Thomas, Dean and others	Topics on geoscience are discussed with members of a laboratory.	For Geoscience English program students who start their Research Seminar in fall. Lecture is conducted in English. face-to-face
EG71152	Research Seminar B	2	1.5	4	SprAB	by appointment		Parkner Thomas, Dean and others	Topics on geoscience are discussed with members of a laboratory.	For Geoscience English program students. Prerequisite: Research Seminar A. Lecture is conducted in English. face-to-face
EG79018	Graduation Research A	8	3.0	4	SprABC	by appointment		地球学類長	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered by 2020 and start their graduation research in spring. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG79028	Graduation Research B	8	3.0	4	FallABC	by appointment		地球学類長	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered by 2020. Prerequisite: Graduation Research A. Lecture is conducted in English. face-to-face
EG79038	Graduation Research A	8	3.0	4	FallABC	by appointment		地球学類長	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered by 2020 and start their graduation research in fall. Lecture is conducted in English. face-to-face
EG79068	Graduation Research B	8	3.0	4	SprAB	by appointment		Parkner Thomas, Dean and others	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered by 2020. Prerequisite: Graduation Research A. Lecture is conducted in English. face-to-face
EG79118	Graduation Research A	8	6.0	4	SprABC	by appointment		Parkner Thomas, Dean and others	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered after 2020 and start their graduation research in spring. Lecture is conducted in English. face-to-face
EG79128	Graduation Research B	8	6.0	4	FallABC	by appointment		Parkner Thomas, Dean and others	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered after 2020. Prerequisite: Graduation Research A. Lecture is conducted in English. face-to-face
EG79138	Graduation Research A	8	6.0	4	FallABC	by appointment		Parkner Thomas, Dean and others	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered after 2020 and start their graduation research in fall. Lecture is conducted in English. face-to-face
EG79168	Graduation Research B	8	6.0	4	SprAB	by appointment		Parkner Thomas, Dean and others	Students undertake research in a laboratory where they become familiar with the most advanced research environments and practices.	For Geoscience English program students who entered after 2020. Prerequisite: Graduation Research A. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG79178	Paper Preparation	8	7.0	4	SprABC	by appointment		Parkner Thomas, Dean and others	Students compose their graduation thesis under supervision of supervisors. This course also includes holding a research presentation at the field-wide graduation presentation meeting.	For Geoscience English program students. Take with Graduation Research B. Lecture is conducted in English. face-to-face
EG79188	Paper Preparation	8	7.0	4	FallABC	by appointment		Parkner Thomas, Dean and others	Students compose their graduation thesis under supervision of supervisors. This course also includes holding a research presentation at the field-wide graduation presentation meeting.	For Geoscience English program students. Take with Graduation Research B. Lecture is conducted in English. face-to-face

Established parent

Requirements
Interdisciplinary Engineering

Foundation Subjects for Major(Required)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days,Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ20004	Linear Algebra I	4	3.0	1	FallABC	Wed4,5	3A213	Tong Xiao-Min	This course introduces the basic ideas of vector, matrix and their operations and how to solve linear equations using matrices and vectors. The primary goal of this course is to understand the systems of linear equations, classifications of matrices and their applications. Although most of the problems can be solved without Mathematica, you are encouraged to solve the homework using the software once you know how to solve the problems. The course is a prerequisite for "Linear Algebra II"	Lecture is conducted in English. face-to-face(partially online) Online(Synchronous), and the recorded materials are available to the students who cannot attend the class synchronously.
FJ20014	Linear Algebra II	4	3.0	1	SprABC	Wed4,5	3A213	Sharmin Sonia	Following "Linear Algebra I"', "Linear Algebra II" will also concentrate on the basics of linear algebra. Emphasis will be given to topics that will be useful in other disciplines, such as determinants, eigenvalues, positive definite matrices, Fourier series and the Fast Fourier Transform. Some homework problems may require you to use a program such as MATLAB or Mathematica, an important tool for numerical linear algebra. No previous programming experience is required.	Lecture is conducted in English. face-to-face(partially online) (i.e. Face-to-Face+Online (Asynchronous))
FJ20124	Introduction to Single-Variable Calculus I	4	2.0	1	FallA	Tue1,2, Thu5,6	3A405	JUNG Mincherl	This course along with the subsequent courses "Introduction to Single-Variable Calculus II" and "Advanced Calculus" introduces the basic tools of calculus and develops their technical competence. The primary goal of this course is to understand the concepts and to build up a working ability of various mathematical manipulations such as derivatives and integrals. This is efficiently achieved by visualization, numerical and graphical experimentations and, thus, students are required to be acquainted with Mathematica (or similar ones) during the course for working exercises and homework problems. The present course provides a basic core and practical knowledge required for many courses in both natural and social sciences.	Lecture is conducted in English. face-to-face. interdepartmental course face-to-face, Synchronous and Asynchronous, Take-home exam
FJ20134	Introduction to Single-Variable Calculus II	4	2.0	1	FallBC	Tue1,2	3A405	WANG JUNHAO	This course along with "Introduction to Single- Variable Calculus I" and "Advanced Calculus" introduces the basic tools of calculus and develops their technical competence. The primary goal of this course is to understand the concepts and to build up a working ability of various mathematical manipulations such as parametric equations, polar coordinates, infinite sequences and series. This is efficiently achieved by visualization, numerical and graphical experimentations and students are required to be acquainted with Mathematica (or similar ones) during the course for working exercises and homework problems. The present course provides a basic core and practical knowledge required for many courses in both natural and social sciences.	Lecture is conducted in English. face-to-face. interdepartmental course face-to-face, Synchronous and Asynchronous, Take-home exam

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ20144	Advanced Calculus	4	4.0	1	SprA SprABC	Tue5, 6 Thu4, 5	3B303	Sano Nobuyuki	Following "Introduction to Single-Variable Calculus I & II," this course introduces the basic tools of calculus and develops their technical competence, namely, differential equations, infinite series, vector calculus, curvilinear coordinate systems, and partial derivatives, etc. This is achieved by visualization, numerical and graphical experimentations and, thus, students are required to be acquainted with Mathematica (or similar ones) during the course as working exercises and homework problems. This course as well as "Introduction to Single-Variable Calculus I & II" provides a core and practical knowledge required for many courses in both natural and social sciences.	Lecture is conducted in English. face-to-face face-to-face, Synchronous and Asynchronous, Take-home exam
FJ20201	Probability and Statistics	1	2.0	1	FallAB FallC	Thu2 Thu1, 2	3A405	Islam Monirul Muhammad	This course introduces basics of probability theory and statistics. This course will be mainly oriented to interpret physical problems in engineering and natural sciences through application of probability theory and statistics. Evaluation will be done through class quiz, homework on regular basis, and final examinations.	Lecture is conducted in English. face-to-face. interdepartmental course face-to-face, Online(Asynchronous) and Online(Synchronous)
FJ22004	Electromagnetism I	4	3.0	2	FallABC	Wed2, 3	3A311	Yoshida Shoji	This course introduces the classical theory of electromagnetism at an undergraduate level. It begins with the fundamental laws and relations governing electrostatic force, electric field and electric potential. These quantities are calculated based on a given system of charges or a given charge distribution. The course also continues with work and energy in electrostatics, electric fields in matter (the concepts of polarization and linear dielectrics), as well as electric fields due to polarized objects.	Lecture is conducted in English. face-to-face(partially online) face to face and some meetings online. recording the face-to-face classes, in case there are any students who are unable to be physically present.
FJ22014	Electromagnetism II	4	3.0	2	SprABC	Tue1, 2	3A311	JUNG Mincherl	This lecture starts from magnetostatics and compares with those properties of electrostatics. The electromagnetic induction is then revealed from the time-dependent variation of electric or magnetic field. All the principles of electric and magnetic fields are summarized in Maxwell's equations. Electromagnetic (EM) waves are finally presented to discuss the EM properties of dielectrics and metals.	Lecture is conducted in English. Only for IDE students. face-to-face
FJ25101	Electrical Circuit	1	2.0	2	FallAB	Tue5, 6	3B302	Nguyen Triet Van	A lecture is given on basic knowledge and analysis methods of electrical and electronic circuits, including linear passive elements, sinusoidal alternating current and complex number, impedance and admittance, resonant circuits, mutual induction circuits, bridge circuits, filters, general circuit theorems, and AC power.	英語で授業 Lecture is conducted in English. face-to-face
FJ26004	Mechanics I	4	2.0	1	FallAB	Mon5, 6	3A212	Matsuda Akihiro	Primary goals of Mechanics I is to develop students' ability to (i) analyze problems in a simple and logical manner and (ii) apply basic principles to find their solutions. This course reviews such fundamental concepts as coordinate, time, mass, force and energy for a particle. The students are required to solve exercises and work on homework assignments.	Lecture is conducted in English. face-to-face
FJ26014	Mechanics II	4	2.0	1	SprAB	Fri5, 6	3A212	Dairaku Koji	Following "Mechanics I", "Mechanics II" will just concentrate on the basics of mechanics. Emphasis will be given to topics that will be useful in other disciplines, such as systems of particles, kinematics and plane motion of rigid bodies and principles about analytical vector mechanics.	Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ26104	Thermodynamics I	4	2.0	2	FallAB	Tue3,4	3A213	SHEN Biao	Thermodynamics is one of the essential physics to discuss energy conservation for engineer in various fields. The aim of this lecture is to master the basics of the first and second laws of thermodynamics. The specific goal is to be able to appropriately express the first law of thermodynamics for the system, to be able to discuss changes in entropy based on the second law of thermodynamics, and to combine these basic matters. The heat efficiency of the heat engine can be derived.	英語で授業 Lecture is conducted in English. face-to-face
FJ26114	Thermodynamics II	4	1.0	2	SprAB	Fri4	3B303	Kaneko Akiko	Thermodynamics is one of the essential physics to discuss energy conservation for engineers in various fields. Based on the first and second laws of thermodynamics learned in "Thermodynamics I", we learn free energy and chemical potential as new state quantities, and advanced matters of thermodynamics such as Maxwell relations and phase changes. The aim is to be able to understand these matters based on the major principles of the first law and the second law, and to cultivate the ability to reconstruct the learned matters from a new perspective by using them as tools.	英語で授業 Lecture is conducted in English. face-to-face
FJ27004	Programming I	4	2.0	1	SprAB	Fri1,2	3L201, 3L206, 3L207, 3L504	Utsuro Takehito,Hoshino Kiyoshi,Hoshino Junichi,Hachisu Taku	This course, introduction to programming, is focused on the first steps in C language. Topics that will be covered include fundamentals of programming languages applicable to general engineering systems. They include C-Language (fundamental operations, standard input-output functions), control statements (branching and jumps, if-statement, looping, while- and for-statements), fundamental data types, basics of making and using functions, storage classes and functions, arrays, character strings, and multidimensional array.	英語で授業 Lecture is conducted in English. Only for IDE students. Online(Asynchronous)
FJ27014	Programming II	4	1.0	1	SprC	Fri1,2	3L201, 3L504	Kitahara Itaru,Hachisu Taku	[Objective] Develop the ability to process information well using computers. [Overview] Learn the basics of programming in C-language. [Topics] Memory space (scoping), Memory address (pointer variable), Function, File I/O, Structure, Linked list, Sorting.	英語で授業 Lecture is conducted in English. Only for IDE students. Online(Asynchronous)
FJ27024	Programming III	4	2.0	2	FallAB	Fri1,2	3A311	Maruyama Tsutomu,Hashimoto Yuki,Hassan Modar	Introduction to algorithm, data structure and computational complexity; Writing C program; Programming techniques	Lecture is conducted in English. Only for IDE students. Online(Asynchronous) face-to-face and Online(Asynchronous)
FJ27034	Programming IV	4	1.0	2	FallC	Thu1,2	3A311	Kameda Yoshinari	After Programming I - III, Learn C programming skill by coding basic computer graphics programs.	Lecture is conducted in English. Only for IDE students. face-to-face Details will be announced on manaba.
FJ28003	Fundamental Labs I	3	2.0	2	FallABC	Mon3-5	3L103, 3L203, 3L204, 3L205	Nakauchi Yasushi,Yabuno Hiroshi,Hoshino Junichi,Shibuya Takeshi,Takatani Tsuyoshi,Hashimoto Yuki,Yamaguchi Tomoyuki,Uehara Akira	Fundamental labs for the basics of Engineering Systems. The labs consist of 6 themes. Each theme will be concluded in 2 weeks (2 weeks x 6 thems = 12 weeks). The 6 thems are as follows: 1. System control engineering basic students' labs, 2. Basics of linear systems using operational amplifiers, 3. Diodes and transistors, 4. Basics of logic circuits and computers, 5. DC motor manufacturing and control, and 6. Mechanisms and mechanical elements.	Only for IDE students. face-to-face Lecture is conducted in English and by face-to-face. Only for IDE students.

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ28013	Fundamental Labs II	3	2.0	2	SprABC	Mon3-5	3A207	Ohno Yuzou, Makimura Tetsuya, Isobe Takanori, Oigawa Haruhiro, Sekiba Daiichiro, Yamagishi Hiroshi	Fundamental labs for the basics of Engineering Sciences Topics will include logic circuits, electronic circuits, electric conduction, radiation measurement, and light.	Lecture is conducted in English. Only for IDE students. face-to-face

Major Subjects(Required)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ10001	Complex Analysis	1	3.0	2	FallABC	Tue1, 2	3A408	TRAORE ABOULAYE	This course introduces theories for functions of a complex variable. Students will acquire skill to use complex derivatives function, to have knowledge about integration in the complex plane, use of Cauchy integral theorem, power series, to evaluate complicated real integrals via residue calculus, etc.	Lecture is conducted in English. face-to-face
FJ10101	Applied Mathematics	1	3.0	2	SprABC	Tue3, 4	3A407	Islam Monirul Muhammad	Applied mathematics will focus on the applications of mathematics in the field of engineering and physics. Students in this course will acquire problem-solving skills using applied knowledge in mathematics in vector analysis, complex variables, group theory, partial differential equation, Fourier series, Fourie and Laplace transforms.	Lecture is conducted in English. face-to-face
FJ11001	Engineering Ethics	1	1.0	4	FallAB	Wed1	3A212	Kakeya Hideki	This course discusses historical examples and up-to-date issues related to engineering ethics. In the first half of the course, we mainly deal with preparedness, mitigation, and response for catastrophic disasters such as earthquakes and tsunami from an engineering point of view. In the second half, we mainly deal with genetic engineering technologies that can cause worldwide pandemic, such as gain-of-function research that artificially enhances transmissibility and pathogenicity of pathogens like bacteria and viruses.	Lecture is conducted in English. face-to-face
FJ11101	Introduction to Interdisciplinary Engineering I	1	1.0	1	FallAB	Tue5	3A213	Matsushima Takashi, Yamamoto Kyosuke, Tezuka Taro, Matsuda Akihiro, Date Hisashi, Kameda Toshihiro, Kaneko Akiko, Takewaka Satoshi, Izawa Jun, Aki Hirohisa	This course discusses issues relevant to Engineering Systems and aims to help students grasp general concepts involved in this field of study.	Lecture is conducted in English. face-to-face(partially online). interdepartmental course
FJ11111	Introduction to Interdisciplinary Engineering II	1	1.0	1	SprAB	Tue1	3A212	Matsuishi Kiyoto	This course discusses issues relevant to Engineering Sciences and aims to help students grasp general concepts involved in this field of study.	英語で授業 Lecture is conducted in English. face-to-face. interdepartmental course
FJ12001	Modern Physics	1	3.0	2	SprABC	Thu1, 2	3B204	Sellaiyan Selvakumar	The course will focus about overview of modern physics aiming at Engineering students. Students in this course will have introductory concept about wave-particle properties of electromagnetic radiation, quantum mechanics, properties of atom, molecular structure, statistical physics, and solid state physics.	英語で授業 Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ15001	System Modeling	1	2.0	2	SprAB	Fri5,6	3A311	Nguyen Triet Van	This course introduces fundamental concepts and techniques in building linear, time-invariant, state-space models of typical engineering systems, including translational and rotational mechanical systems, electrical and electronic circuits, thermal systems, fluid systems, and transductors. Analogies are drawn among these systems in different energy domains based on such concept as the across and the through variables, as well as their energy storages and dissipaters. Response characteristics of standard first and second-order systems are explained, as a prelude to control system designs.	英語で授業 Lecture is conducted in English. face-to-face
FJ15101	Electronic Circuits	1	2.0	2	SprAB	Wed3,4	3A305	Maeda Yuka,Hassan Modar	Following “Electrical Circuits”, this course introduces the fundamentals of electronic circuits, their components, and their analysis. Topics covered are: circuit abstraction method, two terminal elements, Kirchhoff laws, circuit analysis methods, digital abstraction, MOSFET switch, MOSFET amplifier, energy storage elements, operational amplifiers circuit and analysis, and diodes and semiconductors.	英語で授業 Lecture is conducted in English. face-to-face
FJ18003	Advanced Labs I	3	2.0	3	FallABC	Mon3-5	3B311	Matsuishi Kiyoto,Takahashi Miwako,Sakurai Takeaki,Suemasu Takashi,Hasunuma Ryu,Goto Hiromasa,TRAORE ABOULAYE	We conduct basic experiments on important topics in Engineering Sciences [i) X-ray diffraction, ii) Electrical conductivity and Hall effect of semiconductors, iii) Fabrication and electrical characterization of MOS capacitorsand, iv) Optoelectronics, and v) Polymerization of styrene]. Through this course, the techniques necessary for research in Engneering Sciences will be given.	英語で授業 Lecture is conducted in English. Only for IDE students. face-to-face
FJ18013	Advanced Labs II	3	2.0	3	SprABC	Tue3-5	3B305	Yano Hiroaki,Matsuda Tetsuya,Maeda Yuka,Kawai Shin,Nishio Mayuko,Morita Naoki,Kanagawa Tetsuya,Kaneko Akiko	We will deepen our understanding of Engineering Systems. The labs consist of 4 themes. Each theme will be concluded in 2 or 4 weeks (4 weeks x 2 themes + 2 weeks x 2 themes = 12 weeks). The 4 themes are as follows: 1. Control System design (4 wk.), 2. Sensors and analog signal processing (4 wk.), 3. Vibration of structures (2 wk.), and 4. Boiling heat transfer (2 wk.).	英語で授業 Lecture is conducted in English. Only for IDE students. face-to-face
FJ19003	Interdisciplinary Engineering PBL I	3	6.0	3	FallABC	by appointment		Shiraki Kentaro,Yano Hiroaki	Project-based learning opportunities are provided. The students must choose two different laboratories from the field of Engineering Science and Engineering Systems, respectively. Under the laboratory academic advisor's supervision, the students are expected to acquire the specialized knowledge necessary for research through basic study.	Lecture is conducted in English. Only for IDE students. face-to-face(partially online) (PBL style will be advised by each academic advisor)
FJ19013	Interdisciplinary Engineering PBL II	3	6.0	3	SprABC	by appointment		Shiraki Kentaro,Yano Hiroaki	Project-based learning opportunities are provided. The students continue to pursue their studies under the supervision of the laboratory academic advisors chosen in PBL I. The students are expected to complete the research proposals for the full-scale research pursued in PBL III and PBL IV.	Lecture is conducted in English. Only for IDE students. face-to-face(partially online)
FJ19023	Interdisciplinary Engineering PBL III	3	6.0	4	FallABC	by appointment		Shiraki Kentaro,Yano Hiroaki	Project-based learning opportunities are provided. The students carry out research-based studies based on the research proposals planned for each lab chosen in PBL I and PBL II under the supervision of the laboratory academic advisors. With exceptional cases, students may choose one of the two labs in PBL I and PBL II and focus on the research theme of the chosen lab.	Lecture is conducted in English. Only for IDE students. face-to-face(partially online)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ19033	Interdisciplinary Engineering PBL IV	3	6.0	4	SprABC	by appointment		Shiraki Kentaro, Yano Hiroaki	Project-based learning opportunities are provided. The students continue to carry out research-based studies at two labs under the supervision of the laboratory academic advisors. Students are expected to complete their undergraduate research theses on each theme. The students who are allowed to focus on one research theme are required, in addition to their undergraduate research thesis, to submit at least one refereed paper that must be accepted before completing PBL IV.	Not open in 2022. Lecture is conducted in English. Only for IDE students. face-to-face(partially online)
FJ19043	Interdisciplinary Engineering PBL IV	3	6.0	4	FallABC	by appointment		Shiraki Kentaro, Yano Hiroaki	Project-based learning opportunities are provided. The students continue to carry out research-based studies at two labs under the supervision of the laboratory academic advisors. Students are expected to complete their undergraduate research theses on each theme. The students who are allowed to focus on one research theme are required, in addition to their undergraduate research thesis, to submit at least one refereed paper that must be accepted before completing PBL IV.	Lecture is conducted in English. Only for IDE students. face-to-face(partially online)

Major Subjects(Core Electives)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
EG02211	Chemistry I	1	1.0	1	FallA	Tue/Fri 6	2D206	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
EG02221	Chemistry II	1	1.0	1	FallB	Tue/Fri 6	2D206	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
EG02231	Chemistry III	1	1.0	1	FallC	Tue5, Thu6	2D205	Kang Seung Won	Introduction to general chemistry for life and environmental sciences.	Lecture is conducted in English. face-to-face
FJ12101	Statistical Physics I	1	1.0	3	FallAB	Wed5	3A407	Sano Nobuyuki	Statistical Physics as well as Quantum Mechanics provides the most important backbone of modern physics. In the present course, the basic principles of statistical mechanics are explained. After reviewing the basics of probability theory, the fundamental assumption of Statistical Mechanics, "principle of equal a priori probabilities," is introduced to construct statistical ensembles. The microscopic interpretation of entropy is explained so that the connection to thermodynamics becomes constructed.	英語で授業 Lecture is conducted in English. face-to-face
FJ12111	Statistical Physics II	1	1.0	3	FallC	Wed4, 5	3A407	Sano Nobuyuki	The fundamental concepts introduced in Statistical Physics I are applied to a few simple physical systems such as ideal gases. We derive the classical (Boltzmann) and quantum (Fermi-Dirac and Bose-Einstein) statistics from statistical ensembles. The fundamental principles underlying when extracting the maximum work from heat are clarified. Those principles are applied to simple systems such as (classical and quantum) ideal gas and conduction electrons in metals.	英語で授業 Lecture is conducted in English. face-to-face
FJ12121	Statistical Physics III	1	1.0	3	SprAB	Wed5	3A212	Sano Nobuyuki	Following "Statistical Physics I, II", the fundamental principles and various statistical ensembles in Statistical Mechanics are applied to some important phenomena encountered in physics, namely phase transition and Landau phenomenological theory, semiconductor statistics, and quasi-Fermi potentials. A brief introduction to nonequilibrium statistical mechanics, namely, kinetic theory of ideal gas, linear response, and Boltzmann transport theory, is also explained.	英語で授業 Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ12231	Quantum Mechanics I	1	1.0	3	FallA	Fri4,5	3A213	Islam Monirul Muhammad	After a brief historical review, we will cover the basics of quantum theory from the perspective of wave mechanics. This includes a discussion of the wavefunction, the probability interpretation, operators, and the Schrödinger equation. We will then consider simple one-dimensional scattering and bound state problems. Next, we will cover the mathematical foundations needed to do quantum mechanics from a more modern perspective. We will review the necessary elements of matrix mechanics and linear algebra, such as finding eigenvalues and eigenvectors, computing the trace of a matrix, and finding out if a matrix is Hermitian or unitary. We will then cover Dirac notation and Hilbert spaces. The postulates of quantum mechanics will then be formalized and illustrated with examples.	For students enrolled in 2020 or later. Lecture is conducted in English. face-to-face
FJ12241	Quantum Mechanics II	1	1.0	3	FallBC	Fri4	3A213	Islam Monirul Muhammad	We will discuss the mathematical foundations of quantum theory with three important cases: angular momentum and spin, the harmonic oscillator, and an introduction to the physics of the hydrogen atom. Other topics covered include the density operator, the Bloch vector, and two-state systems.	For students enrolled in 2020 or later Lecture is conducted in English. face-to-face
FJ12251	Quantum Mechanics III	1	1.0	3	SprAB	Thu5	3A305	Islam Monirul Muhammad	We will study advanced topics from non-relativistic quantum theory such as scattering, identical particles, addition of angular momentum, higher Z atoms, and the WKB approximation.	Not open in 2022. For students enrolled in 2020 or later. Lecture is conducted in English. face-to-face
FJ12301	Advanced Electromagnetism I	1	1.0	3	FallA	Fri1,2	3A408	Fujioka Jun	This course introduces the fundamental concept of electromagnetic field and the Maxwell's equations. First, the fundamental laws of electromagnetic field in vacuum is explained and Maxwell's equation is derived. Next, the application of Maxwell's equation to the static electric/magnetic field is described.	Lecture is conducted in English. face-to-face Identical to OAJG041
FJ12311	Advanced Electromagnetism II	1	1.0	3	FallB	Thu4,5	3Z107	JUNG Mincherl	Time-varying/time-harmonic electromagnetic fields and electrical properties of matter based on Maxwell' s equations will be studied. Topics include: variable forms of Maxwell' s eq., dielectrics/magnetics-polarization/magnetization-permittivity/permeability, etc.	Lecture is conducted in English. face-to-face Identical to OAJG042
FJ12321	Advanced Electromagnetism III	1	1.0	3	FallC	Thu1,2	3Z107	JUNG Mincherl	Wave equation, propagation, polarization, reflection, transmission, radiation, and scattering will be studied. Topics include: variable formed wave eq., transverse electromagnetic modes (in Lossy media), linear/circular polarization, different incidence issues in Lossy media with multiple interfaces, electromagnetic theorems and principles, etc.	Lecture is conducted in English. face-to-face Identical to OAJG043
FJ12401	Solid State Physics I	1	1.0	4	FallAB	Mon4	3Z107	Kojima Seiji	We learn fundamental knowledge of solid state physics, i.e. Crystal, structure, diffraction, reciprocal, lattice, Brillouin zone, ionic crystals, elastic constants.	Lecture is conducted in English. face-to-face Identical to OAJG061
FJ12411	Solid State Physics II	1	1.0	4	FallC	Mon/Fri 4	3Z108	Kojima Seiji	We learn fundamental knowledge of solid state physics, i.e. crystal structure, wave diffraction and reciprocal lattice, thermal motion of atoms in crystal, electronic states in crystal. The thermal properties, transport phenomena, phase transitions and so on, in solids, will be discussed for understanding of advanced contents of materials science.	Lecture is conducted in English. face-to-face Identical to OAJG062
FJ12421	Solid State Physics III	1	1.0	4	SprBC	Mon4	3B304	Kojima Seiji	We learn fundamental knowledge of solid state physics, i.e. band structure, semiconductor crystals, Fermi surfaces, metals.	Not open in 2022 Lecture is conducted in English. face-to-face Identical to OAJG063

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
FJ15011	Control Systems I	1	2.0	3	FallAB	Wed3,4	3B301	Date Hisashi	This course introduces the control theory for linear systems based on state-space modeling. It covers the notion of stability, controllability, and observability, followed by the design of state feedback and observer. It also briefly covers the notion of frequency-domain techniques.	Lecture is conducted in English. face-to-face(partially online)
FJ15021	Control Systems II	1	2.0	3	SprAB	Wed3,4	3B301	Mochiyama Hiromi	This course introduces the feedback control theory for linear dynamical systems. First, system modeling is considered in frequency, Laplace, and time domains with the notions of frequency transfer function, transfer function, and impulse response. Then, the pros and cons of feedback control are explained in comparison with feedforward control. Finally, control system design is also treated for stabilization as well as better steady-state and transient performances.	Lecture is conducted in English. face-to-face Hybrid (face-to-face and online(synchronous)). The recorded course movies will also be available for later viewing.
FJ16011	Fluid Dynamics	1	1.0	3	FallAB	Mon2		Yokota Shigeru	This course covers the principal concepts and methods of fluid dynamics. Topics include basic laws of fluids, analysis of irrotational flow and vortex, introduction to compressible flows and viscos flows.	Lecture is conducted in English. Online(Asynchronous) This course cannot be taken by students who have already taken Fluid Dynamics I.
FJ16021	Mechanics of Materials	1	1.0	3	FallAB	Thu2	3B204	Matsushima Takashi	The course describes the basics of continuum mechanics for solid including the analyses of stress and strain, linear elasticity as the simplest the constitutive model, and the yield criterion.	Lecture is conducted in English. face-to-face. interdepartmental course
FJ16031	Energy Engineering	1	1.0	3	SprC	Tue1,2	3A212	Aki Hirohisa	This course introduces energy-related technologies and issues from an engineering perspective. Energy systems and energy issues is explained first, followed by an overview of some elemental technologies. The basic disciplines of energy include electrical engineering and mechanical engineering, but many more advanced disciplines are involved, such as semiconductor engineering, materials engineering, power engineering, and electrochemistry. In addition, an understanding of systems engineering and information engineering is required for actual operation. Each of the five instructors will discuss one topic such as renewable energy and provide commentary.	Lecture is conducted in English.

Established parent

Requirements
Medical Science Program for International Students

Major Subjects (Required Courses)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
HE40011	Medical Microbiology	1	2.0	3, 4	FallAB	by appointment		Morikawa Kazuya	This course offers a series of lectures and discussions regarding the molecular mechanisms underlying in bacterial pathologens. Students will learn hot topics and techniques in molecular bacteriology fields.	This course is for foreign students in School of Medical Sciences. Lecture is conducted in English. face-to-face(partially online) Face-to-face classes at first, then online.
HE40061	English Communication for Medical Sciences I	1	3.0	3	FallABC	Intensive		Sakaguchi Masanori, Takahashi Satoru, Hamada Michito, Hisatake Koji, Irie Kenji, Ohbayashi Norihiko, Kawaguchi Atsushi, Matsuzaka Takashi	This course covers a variety of medical science research topics. Students will learn basic concepts, methodology, and scientific thinking through each research topic.	This lecture is open for only the student of International Medical Science only. Lecture is conducted in English. Details will be annouced.. face-to-face(partially online)
HE40071	English Communication for Medical Sciences II	1	3.0	4	SprAB SprC	Mon/Fri 1 Mon/Thu 1		Hamada Michito, Takahashi Satoru	This course covers a variety of medical science research topics. Students will learn basic concepts, methodology, and scientific thinking through each research topic.	This lecture is open for only the student of International Medical Science only. Lecture is conducted in English. face-to-face(partially online)
HE40081	Topics in Medical Sciences I	1	1.0	3	FallAB	Wed3		Ho Kiong, Hisatake Koji	This course helps students to understand the basics of genes and genomes and enable them to develop critical thinking in medical science.	Lectures are coducted in English. Lecture is conducted in English. face-to-face(partially online)
HE40091	Topics in Medical Sciences II	1	1.0	4	SprBC	Tue4		Hisatake Koji, Ho Kiong	This course helps students to understand the recent developments in medical science research by active learning and discussion.	Only International Medical Science Course students. Lecture is conducted in English. face-to-face
HE40102	Seminar on Medical Sciences	2	1.0	3	FallBC	by request		Mizutani Eiji	This course helps students deepen their understanding of the research in medical sciences by proactively investigating issues in medical sciences and coming up with solutions.	This course is for students in the International Medical Science Major. Lecture is conducted in English. face-to-face
HE40112	Research Seminar	2	2.0	3	FallBC	by request		Mizutani Eiji	The students will select their theme from a variety of fields in medical sciences based on their own interests, and participate in research seminar and actual research activity in the laboratory.	Offered exclusively for students in the International Medical Science Major. Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
HE40113	Graduation Research	3	8.0	4	SprABC, FallAB	by request		Mizutani Eiji	The aim of this course is to learn the knowledge of medical sciences and problem-solving skills through a research in laboratories. The students can select their theme from a variety of fields in medical sciences based on their own interests.	This course is for students in the International Medical Science Major. Lecture is conducted in English. face-to-face
HE40131	Clinical Hematology	1	2.0	3					血液の組成、血液の生理的機能、血球の産生とその調節機構、造血因子および造血微小循環などについて教授する。主要な血液疾患の病態生理とその診断のための血液学的検査法の原理と手法、血球の形態学的検査の原理と手法について教授する。白血病の病理的診断(FAB分類)、リンパ腫の病理的診断法を教授する。	Students should obtain permission of the instructor before taking this course. Basically online lessons. Lecture is conducted in English. Not open in 2024. Online(Asynchronous) This lecture will not be offered in FY2023.
HE40141	Coagulation and Fibrinolysis	1	1.0	3					血液の凝固・線溶液系の生理的機構を教授し、その失調に伴う出血傾向や血栓症に関する基本的検査法について教授する。凝固・線溶系の検査法の原理と手法、血小板の機能検査の原理と手法について教授する。	Students should obtain permission of the instructor before taking this course. Basically online lessons. This course for English program students. Lecture is conducted in English. Not open in 2024. Online(Asynchronous) This lecture will not be offered in FY2023.
HE40151	Clinical Pathophysiology	1	2.0	3					This course introduces the fundamentals of the cell mechanism and abnormalities thereof as well as cell division, cell death, tumor growth and aging. This course then deals with a wide range of topics, from abnormalities of the heat and energy balance, via the pathomechanisms of diseases of the blood, lungs, kidneys, gastrointestinal tract, heart and circulation, and of the metabolism, including endocrinal abnormalities, diseases of skeletal muscle, the senses, and the peripheral and central nervous system.	Students should obtain permission of the instructor before taking this course. This courses will not be provided in 2024. Lecture is conducted in English. Lecture is conducted in English. Not open in 2024.
HE40161	Topics in Vascular Biology	1	1.0	3, 4	FallAB	Intensive	4B119	Yanagisawa Hiromi, YAMASHIRO YOSHITO, KIMURA KENICHI, Ishii Ryutaro, Erna Raja	To provide basic knowledge and understanding of vascular biology, ranging from normal vascular development and physiology to molecular mechanisms of vascular diseases, as well as novel diagnostic and therapeutic approaches. The course aims to solicit active participation of students in lectures and journal clubs.	Only Medical Sciences students. Lecture is conducted in English. Details will be annouced.. face-to-face
HE40201	Immunology	1	2.0	3, 4	Annual	by appointment		Shibuya Akira, Shibuya Kazuko, Oda Chigusa	Humans have built a highly integrated immune system as a biological defense mechanism against pathogenic microorganisms. However, infectious diseases are still the greatest threat to humankind even today. On the other hand, abnormalities in the immune system are also an essential cause of intractable diseases such as autoimmune diseases and allergies. In addition, cancers and rejection of transplanted organs are also issues that are directly related to the immune system. This course provides an overview of the immune system.	This course for English program students Lecture is conducted in English. face-to-face

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
HE40231	Clinical Pharmacology	1	1.0	3	SprC	by request		Lazarus Michael, Oishi Yo	Learn the mechanisms of various drugs used in clinical practice and understand the indications and contraindications of drugs. Through these studies, students deepen their understanding of physiological functions in living organisms.	This course is for English program students. Lecture is conducted in English. face-to-face
HE40263	Seminar on Medical Sciences	3	1.0	3	Annual	by request		Funakoshi Yuji	This course helps students deepen their understanding of the research in medical sciences by proactively investigating issues in medical sciences and coming up with solutions.	This course for students in the G30 program of the International Medical Science Major. Lecture is conducted in English. face-to-face
HE40272	Research Seminar	2	2.0	3	FallBC	by request		Funakoshi Yuji	The students will select their theme from a variety of fields in medical sciences based on their own interests, and participate in research seminar and actual research activity in the laboratory.	Offered exclusively for students in the G30 program of the International Medical science Major who enrolled in the program in 2020 or later. Lecture is conducted in English. face-to-face
HE40273	Graduation Research	3	8.0	4	Annual	by request		Funakoshi Yuji	The aim of this course is to learn the knowledge of medical sciences and issue-solving skills through a research in laboratories. The students can select their theme from a variety of fields in medical sciences based on their own interests.	This course for English program students Lecture is conducted in English. face-to-face
HE41170	International Forum on Medical Biology Research	0	1.0	2 - 4	Annual	by request		Morikawa Kazuya	Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory.	Lecture is conducted in English. face-to-face
HE41175	Training Abroad on Medical Biology	5	1.0	3, 4	Annual	by request		Morikawa Kazuya	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lecture is conducted in English. Details will be annouced.. Online(Synchronous)
HE41181	Workshop for Medical Science Students	1	1.0	3	FallC	Wed1, 2		Ho Kiong	The course consists of seminar-style lectures and group discussions to introduce questions and problems in Global Health and Medical Sciences.	Only medical science students enrolled after 2019. Lecture is conducted in English. face-to-face(partially online)
HE41190	International Forum on Medical Biology Research II	0	1.0	2 - 4	Annual	by request		Morikawa Kazuya	Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory.	Only Medical Sciences students. Lecture is conducted in English. face-to-face
HE41200	International Forum on Medical Biology Research III	0	1.0	2 - 4	Annual	by request		Morikawa Kazuya	Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory.	Only Medical Sciences students. Lecture is conducted in English. face-to-face
HE41210	International Forum on Medical Biology Research IV	0	1.0	2 - 4	Annual	by request		Morikawa Kazuya	国際学会参加や短期間の調査研究をとおして、海外の担当者あるいは研究者と意見交換し、国際的な研究の動向を把握し、自身のキャリアに活かす。	Only Medical Sciences students. Lecture is conducted in English. face-to-face
HE41215	Training Abroad on Medical Biology II	5	1.0	3, 4	Annual	by request		Morikawa Kazuya	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lecture is conducted in English. Online(Synchronous)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
HE41220	International Forum on Medical Biology Research V	0	1.0	2 - 4	Annual	by request		Morikawa Kazuya	国際学会参加や短期間の調査研究をとおして、海外の担当者あるいは研究者と意見交換し、国際的な研究の動向を把握し、自身のキャリアに活かす。	Only Medical Sciences students. Lecture is conducted in English. face-to-face
HE41225	Training Abroad on Medical Biology III	5	1.0	3, 4	Annual	by request		Morikawa Kazuya	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lecture is conducted in English. Online(Synchronous)
HE41241	Genetic Testing and Chromosome Analysis	1	1.0	3	SprBC	by request		Noguchi Emiko, Miyadera Hiroko	Students will learn the basic knowledge of DNA, chromosome and genetics of the diseases through lectures and e-learning. The date of the classes will be announced. The instructor will provide materials (handout, text and e-learning materials) and students are expected to learn the materials prior to the class. At the class, the instructor and students will discuss the contents of the materials provided and students will take short tests.	This course for English program students. Lecture is conducted in English. Details will be announced. Lecture is conducted in English. Details will be annouced.. face-to-face

Established parent

Requirements
Bachelor's Program in Global Issues

Foundation Subjects for Major (Required)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
VB10001	General Introduction to Global Issues	1	3.0	1	FallA FallB	Mon/Fri 1, 2 Mon1, 2	9G401	Morio Takahiro, AKIYAMA Hajime, Nomura Nakao, Sandoval Felipe	Students look at global issues from various perspectives through this course. First, we discuss what global issues are and share a basic perspective. It then considers specific issues based on sustainable development goals (SDGs).	Lecture is conducted in English. Major required course. face-to-face. interdepartmental course
VB10011	Methodology for Global Issues	1	3.0	1	FallA FallB FallC	Wed2-4 Wed2 Wed3, 4	9G401	Morio Takahiro, Nomura Nakao, Jactat Bruno Daniel Philippe, AKIYAMA Hajime, Sandoval Felipe	Using the Problem Based Learning Approach, in this course students can deepen the global issues at three levels: 1. deepen the knowledge and the information about a problem, issue 2. how everyone is concerned (I, you, them) and how everything is linked 3. what behaviour to adopt, what to do to tackle the global issues, looking globally to problem and identifying local solutions	Lecture is conducted in English. Major required course. face-to-face. interdepartmental course
VB20001	Literacy in Global Issues (Environment)	1	3.0	1	FallAB	Tue1, 2 Intensive	9G401	Tsujimura Maki, Morio Takahiro	This course aims at acquiring fundamental knowledge to understand global issues from environmental viewpoints. On Tuesdays, students will be required to read the designated textbook on basics of earth environmental sciences together and give presentation on the contents. On Thursdays, students will learn examples to deepen insights on actual global issues through lectures by experts.	Lecture is conducted in English. Major required course. face-to-face. interdepartmental course
VB30001	Literacy in Global Issues (Human)	1	3.0	1	FallAB FallC	Mon5, 6 Intensive	9G401	AKIYAMA Hajime, Sandoval Felipe, Morio Takahiro	This course focuses on specific approaches to the global issues of social diversity-inclusion as well as human health-wellbeing. Taking concrete examples, students can deepen basic knowledge of the global governance and well-being.	Lecture is conducted in English. Major required course. face-to-face. interdepartmental course

Major Subjects (Required)

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Classroom	Instructor	Course Overview	Remarks
VB10012	Seminars on Global Issues III	2	6.0	4	FallABC	by appointment		Morio Takahiro, Sandoval Felipe	The aim of this series of seminars is to enable each student to determine his/her research theme on specific issues at the global or planetary scale. At this level, students are supervised and directed individually to better enable each one to develop his/her own original approach and be able to contact the appropriate laboratories at the University of Tsukuba.	Students who have completed the Seminars on Global Issues A-II (VB20022) and Seminars on Global Issues B-II (VB30023) . Lecture is conducted in English. Major required course. face-to-face(partially online)
VB10013	Practical Training on Global Issues III	3	6.0	4	FallABC	by appointment		Morio Takahiro, Sandoval Felipe	Students will learn how to set up local, global and international projects both individually and as a team. They will interact with businesses, research institutions, NPO, NGO, and so on, depending on their specific field of interest, in order to research solutions to global-level issues.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues III (VB10012) . Lecture is conducted in English. Major required course. face-to-face(partially online)
VB10018	Graduation Research I	8	3.0	4	FallABC	by appointment		Morio Takahiro, Sandoval Felipe, AKIYAMA Hajime, Jactat Bruno Daniel Philippe	Students may choose to either submit a thesis or undertake an internship according to their specific field of research. Students will be individually supervised by faculty from the different disciplines.	Lecture is conducted in English. Major required course. face-to-face(partially online)

VB10028	Graduation Research II	8	3.0	4	SprABC	by appointment		Morio Takahiro, Sandoval Felipe, AKIYAMA Hajime	Students may choose to either submit a thesis or undertake an internship according to their specific field of research. Students will be individually supervised by faculty from the different disciplines. And students will achieve their challenging work in thesis or report.	Lecture is conducted in English. Major required course. face-to-face(partially online)
VB10038	Graduation Research I	8	3.0	4	SprABC	by appointment		Morio Takahiro, Sandoval Felipe, Jactat Bruno Daniel Philippe	Students may choose to either submit a thesis or undertake an internship according to their specific field of research. Students will be individually supervised by faculty from the different disciplines. Consult with your supervisor before enrolment.	Lecture is conducted in English. Major required course. face-to-face(partially online) Consult with your supervisor before enrolment.
VB10048	Graduation Research II	8	3.0	4	FallABC	by appointment		Morio Takahiro, Sandoval Felipe	Students may choose to either submit a thesis or undertake an internship according to their specific field of research. Students will be individually supervised by faculty from the different disciplines. And students will achieve their challenging work in thesis or report. Consult with your supervisor before enrolment.	Lecture is conducted in English. Major required course. face-to-face(partially online) Consult with your supervisor before enrolment.
VB20012	Seminars on Global Issues A-1	2	6.0	2	SprABC	Fri5,6 by appointment	9G401	Morio Takahiro, Sandoval Felipe	This series of seminars aims at providing basic knowledge and skills to solve global issues in the fields of “Earth Environment” and “Risk and Security” through the PBL (Problem Based Learning) method. In the first part students will learn history and theories related to environmental problems and disaster resilience. Second, students will acquire methodologies that are useful to analyze phenomena that cause global issues. Third, students will conduct fieldwork and apply the knowledge from lecture to understand problems and suggest solution for target area. Lastly, students will present the achievement of group work.	This course is for BPGI students, or students who have earned credits of VB10001 and VB10011. Lecture is conducted in English. Major required course. face-to-face
VB20013	Practical Training on Global Issues A-I	3	3.0	2	SprABC	Thu5,6 by appointment	9G401	Morio Takahiro, Sandoval Felipe	This practical training enhances skills of problem formation and solution development through PBL (Problem Based Learning) to attack global issues in the field of “Earth Environment” and “Risk and Security”. Firstly, students will set individual study project related to global issue. Then, students will conduct their research activities including literature review, data analysis, and survey by consulting with their advisor and mentor. Student will present on their study project and have discussion. This course also provide the lectures of methodology for data analysis related to themes of study project.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues A-I (VB20012) Lecture is conducted in English. Major required course. face-to-face
VB20022	Seminars on Global Issues A-II	2	6.0	3	SprABC	Fri1,2 by appointment	9G402	Morio Takahiro, Sandoval Felipe	This series of seminars aims at providing basic knowledge and skills to solve global issues in the fields of “Earth Environment” and “Risk and Security” through the PBL (Problem Based Learning) method. In the first part students will learn history and theories related to environmental problems and disaster resilience. Second, students will acquire methodologies that are useful to analyze phenomena that cause global issues. Third, students will conduct fieldwork and apply the knowledge from lecture to understand problems and suggest solution for target area. Lastly, students will present the achievement of group work.	Students who have completed the Seminars on Global Issues A-I (VB20012). Lecture is conducted in English. Major required course. face-to-face

VB20023	Practical Training on Global Issues A-II	3	3.0	3	SprABC	Thu5,6 by appointment	9G402	Morio Takahiro,Sandoval Felipe	This practical training enhances skills of problem formation and solution development through PBL (Problem Based Learning) to attack global issues in the field of “Earth Environment” and “Risk and Security”. Firstly, students will set individual study project related to global issue. Then, students will conduct their research activities including literature review, data analysis, and survey by consulting with their advisor and mentor. Student will present on their study project and have discussion. This course also provide the lectures of methodology for data analysis related to themes of study project.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues A-II (VB20022). In principle, only BPGI students are allowed. Students other programmes may be accepted after consultation. Lecture is conducted in English. Major required course. face-to-face
VB30012	Seminars on Global Issues B-I	2	6.0	2	FallAB FallABC FallC	Fri2,3 Wed4,5 Wed1,2	9G402	AKIYAMA Hajime,Sandoval Felipe,Morio Takahiro	These seminars will approach a wide range of academic knowledge, evaluation methods, and coping and preventive strategies related to the issues of social diversity-inclusion as well as human health-wellbeing. For the former part, the course will provide a variety of global issues concerning the disciplines of humanities and social sciences. Students will learn what are problems and discuss how we can resolve them. As for the latter part, the course will approach the health matters of aged people, as contemporary society requires information literacy and care of the elderly. Students will learn basic concepts and techniques of a survey to grasp problems in a real situation, processing methods, and interpretative strategies for gathered information (documents, data). In the end, students will come up with an action plan and/or original research project aiming at finding and solving problems in a real situation.	This course is for BPGI students, or students who have earned credits of VB10001 and VB10011. Lecture is conducted in English. Major required course. face-to-face
VB30013	Practical Training on Global Issues B-I	3	3.0	2	FallABC	Tue3,4, by appointment	9G401	Sandoval Felipe,AKIYAMA Hajime,Morio Takahiro	These courses will provide experiences of tackling global issues. Students will conduct, individually or on a team, a practical activity in order to understand causes, backgrounds, processes of the global issues and seek solutions. Students also use a variety of methods for this purpose, including group discussions, data collection, field research, and experimentation. It will be important to derive feasible solutions based on objective evidences. In the end, students will make a presentation of the research and obtain critical feedback on the project.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues B-I (VB30012). Lecture is conducted in English. Major required course. face-to-face
VB30022	Seminars on Global Issues B-II	2	6.0	3	FallABC	Mon/Thu 3,4	9G402	Sandoval Felipe,AKIYAMA Hajime,Morio Takahiro	These seminars will approach a wide range of academic knowledge, evaluation methods, and coping and preventive strategies related to the issues of social diversity-inclusion as well as human health-wellbeing. For the former part, you will learn a variety of global issues concerning the disciplines of humanities and social sciences. You will learn what are problems and discuss how we can resolve them. As for the latter part, the course will approach the health matters of aged people, as contemporary society requires information literacy and care of the elderly. You will learn basic concepts and techniques of a survey to grasp problems in a real situation, processing methods, and interpretative strategies for gathered information (documents, data). In the end, you will come up with an action plan and/or original research project aiming at finding and solving problems of a real situation.	Students who have completed the Seminars on Global Issues B-I (VB30012). Lecture is conducted in English. Major required course. face-to-face

VB30023	Practical Training on Global Issues B-II	3	3.0	3	FallABC	Fri3,4, by appointment	9G401	Morio Takahiro,AKIYAMA Hajime,Sandoval Felipe	These courses will provide experiences of tackling global issues. Students will conduct, individually or on a team, a practical activity in order to understand causes, backgrounds, processes of the global issues and seek solutions. Students also use a variety of methods for this purpose, including group discussions, data collection, field research, and experimentation. It will be important to derive feasible solutions based on objective evidences. In the end, students will make a presentation of the research and obtain critical feedback on the project.	Lectures are conducted in English. Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues B-II (VB30022).In principle, only BPGI students are allowed. Students other programmes may be accepted after consultation. Lecture is conducted in English. Major required course. face-to-face