

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.

Month	April–May	June–July	August–September	October–November	December–January	February–March		
Semester	Spring Semester				Fall Semester			
Module (5 week units)	Spring A module	Spring B module	Spring C module	Holidays (summer)	Fall A module	Fall B module	Fall C module	Holidays (spring)
Examples of class implementation modules (5 weeks or 10 weeks)	→	→	→	Summer session, etc.	→	→	→	Entrance exam, degree review, etc.
Examples of semester modules (15 weeks)	→				→			

(5) Description of Contents

Example:

Course Number	Course Name	Instructional Type	Credits	standard registration year	Term	Meeting Days, Period etc.	Instructor	Course Overview	Remarks
AB10191	Philosophy	1	1.0	1	Spring A · B	Tue.6	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.

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. Course registration will be possible after the class schedule has been finalized.
- 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) 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 synchronously.

(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 ICT Guide for the University of Tsukuba. (<https://www.u.tsukuba.ac.jp/ict-guide/>)

(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.

(10) 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). Course number that you must 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 achievement test, etc.

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
<p style="text-align: center;">Course Registration Guidebook (By Year of Admission)</p> <p style="text-align: center;">Distributed at the Time of Enrollment</p>	<ul style="list-style-type: none"> ●The Course Registration Guidebook provides the following information about registration. Please read this guide carefully. <ul style="list-style-type: none"> - 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.
<p style="text-align: center;">Course Catalog (This volume)</p> <p style="text-align: center;">Distributed Each Academic Year</p>	<ul style="list-style-type: none"> ●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	<ul style="list-style-type: none"> •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)	<ul style="list-style-type: none"> •Orientation meetings are offered in academic centers Center for Education of Global Communication, Bureau of Physical Education and Sports, etc. (Advising session on general subjects, such as foreign language, physical Education, etc.) •Undergraduate orientation (Academic advising held by each college)
---------------------------------------	---



Course Registration Scheduling	<ul style="list-style-type: none"> •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	<ul style="list-style-type: none"> •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	Saturday, April 4 – Monday, April 27
Spring B	Saturday, April 4 – Monday, June 1
Spring C	Saturday, April 4 – Wednesday, July 8
Fall A	Saturday, April 4 – Wednesday, October 14
Fall B	Saturday, April 4 – Wednesday, November 18
Fall C	Saturday, April 4 – Friday, January 15

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 Bureau of Physical Education and Sports. 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.”

Registration of Multidisciplinary Subjects for Students in Curriculum ii

The registration method of Multidisciplinary Subjects for students in Curriculum ii is as follows, so file the registration with caution.

■Multidisciplinary Subjects I

Multidisciplinary Subjects I was discontinued in AY 2025. If you do not have enough credits for "Multidisciplinary Subjects I" required for graduation, take the following actions.

- ① If you have not yet registered for "Freshman Seminar," register for "First Year Seminar" in accordance with the instructions of your organization. In that case, there is no need to go through substitution procedures, etc.
- ② For Introductory Subjects, by registering for some "Multidisciplinary Subjects for the Undergraduate Degrees" beginning with course nos. "12" and "13", you will be automatically treated as having registered for Multidisciplinary Subjects I. There is no need to go through substitution procedures, etc. Only courses in the following list will be treated as having been registered for Multidisciplinary Subjects I.

【Courses that are treated as having been registered for Multidisciplinary Subjects I】

Course No.	Course Name	Course Offering Term	Weekday, Period	Credits	Remarks
1290011	Learning and Ethics of Research	Fall AB	Wed 2	1	
1290021	OMOTENASHI —Japanese Culture and Manner—	Fall AB	Thu 3	1	
1290161	OMOTENASHI —Japanese Culture and Manner—	Spr AB	Thu 3	1	
1290171	Forest	Spr A	Mon 1,2	1	
1290181	Introduction to Inclusive Smart Society I	Fall AB	by request	1	
1290191	Introduction to Inclusive Smart Society II	Fall C, Spr Vac	by request	1	
1390111	Living in Japan as Foreign Students	Fall AB	Fri 3	1	

■Multidisciplinary Subjects II

Multidisciplinary Subjects II was discontinued in AY 2023. If you do not have enough credits for "Multidisciplinary Subjects II" required for graduation, register for some Multidisciplinary Subjects for the Undergraduate Degrees or courses offered by each college. See "Alternative Subjects as Multidisciplinary Subjects II for English Program Students" below for a list of courses that can be substituted as Multidisciplinary Subjects II and the substitution procedure. Note that there is a need to go through the substitution procedure for Multidisciplinary Subjects II.

■Multidisciplinary Subjects III

Multidisciplinary Subjects III was discontinued in AY 2025. If you do not have enough credits for "Multidisciplinary Subjects III" required for graduation, by registering for "Multidisciplinary Subjects for the Undergraduate Degrees (Upper Years Only)" beginning with course no. "14", you will be automatically treated as having registered for Multidisciplinary Subjects III. There is no need to go through substitution procedures, etc. The following is a list of courses that are treated as having been registered for Multidisciplinary Subjects III.

【Courses that are treated as having been registered for Multidisciplinary Subjects III】

Course No.	Course Name	Course Offering Term	Weekday, Period	Credits	Subject Type	Remarks
1490011	Topics in Social Sciences	Fall AB	Wed2	1	E	
1490014	Inclusive Smart Society PBL	Fall C, Spr Vac	by request	1	G	
1490221	Mechatronics Basics and Applications	Fall ABC	Fri3	1	D	

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	Intensive	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	Tue5,6	2.0	*2
BE21371	Introduction to Law	Spring AB	Mon1,2	2.0	
BE21381	Introduction to Political Science	Fall AB	Fri5,6	2.0	
BE21391	Introduction to Sociology	Fall AB	Thu5,6	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	

Course Manager

Requisite
Multidisciplinary Subjects

First Year Seminar

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1190212	First Year Seminar	2	1.0	1	Sum Vac	Intensi- ve	Edson Ioshiaqui Urano	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. Lectures are conducted in English. face-to-face
1190222	First Year Seminar	2	1.0	1	Sum Vac	Intensi- ve	hidekazu kuwayama, Louis John Irving, Kaori Ishikawa, Yoshite- ru Hashimoto, Seung Won Kang, Zhongfang Lei, Thomas Parkner	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 Lectures are conducted in English. face-to-face
1190232	First Year Seminar	2	1.0	1	Sum Vac	by appoint- ment	Sonia Sharmin, Modar Hassan	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 Lectures are conducted in English. face-to-face
1190312	First Year Seminar	2	1.0	1	Fall IAB	Thu2	Ryosuke Ohniwa, Takahiro Morio, Nakao Nomura, Shuntaro Yada, Hajime Akiyama, Ganchime- g Togoobaatar	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. Lectures are conducted in English. face-to-face

Invitation to Arts and Sciences

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1228511	Invitation to Arts and Sciences	1	1.0	1	Fall I A	by appoint- ment	Edson Ioshiaqui Urano	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 Lectures are conducted in English. CDP Online (Asynchronous)
1228521	Invitation to Arts and Sciences	1	1.0	1	Fall I A	by appoint- ment	Tomoyuki Yokoi, Takashi Shiratori, Takuto Kumano, Daichi Suzuki	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 Lectures are conducted in English. CDP Online (Asynchronous)
1228531	Invitation to Arts and Sciences	1	1.0	1	Fall I A	by appoint- ment	Zhongfang Lei	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 Lectures are conducted in English. CDP Online (Asynchronous)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1228541	Invitation to Arts and Sciences	1	1.0	1	Fall A	by appointment	Thomas Parkner	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 Lectures are conducted in English. CDP Online (Asynchronous)
1228551	Invitation to Arts and Sciences	1	1.0	1	Fall A	by appointment	Norihiko Ohbayashi, Kiong Ho	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 Lectures are conducted in English. CDP Online (Asynchronous)
1228561	Invitation to Arts and Sciences	1	1.0	1	Fall A	by appointment	Sonia Sharmin, Modar Hassan	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 Lectures are conducted in English. CDP Online (Asynchronous)
1228571	Invitation to Arts and Sciences	1	1.0	1	Fall A	by appointment	Ryosuke Ohniwa	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 Lectures are conducted in English. CDP Online (Asynchronous)

Multidisciplinary Subjects for the Undergraduate Degrees

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1290011	Learning and Ethics of Research	1	1.0	1	Fall IAB	Wed2	Hideki Kakeya, Koji Dairaku, Jun Izawa, Hisashi Date, Sandra Milena Puentes	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. Lectures are conducted in English. face-to-face
1290021	OMOTENASHI —Japanese Culture and Manner—	1	1.0	1	Fall IAB	Thu3	Izumi Egami	<ul style="list-style-type: none"> - 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 Lectures are conducted in English. face-to-face
1290031	Global Issues and Society	1	1.0	1, 2	Fall IC	Intensive	Takahiro Morio, Rajeev Kumar Singh, Pankaj Kumar	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 (IC90131) are not allowed to take this class. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1290041	Japanese Issues I (Japanese Nature and Geography)	1	1.0	1, 2	Spr Vac	Intensi- ve	Chinami Yamamoto	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. Class period: Feb 17-19, Feb 22 and 24, 2027. Registration period: Oct 1, 2026 - Feb 15, 2027. Lectures are conducted in English. 2/17-2/19, 2/22 and 2/24, 2027. Lectures are conducted in English. 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	Chinami Yamamoto	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 an even number year. Lectures are 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 an odd number year. Lectures are 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	Fall C	Fri1,2	Ruth Vanbaelen	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. Lectures are conducted in English. face-to-face Details will be given in class or posted on manaba.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1290081	Japanese Issues V (Japanese Socio- culture)	1	1.0	1, 2	Spr Vac	Intensi- ve	Ruth Vanbaelen	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. Class period: Feb 17-19, 2027 Registration period: Oct 1, 2026 - Feb 15, 2027 Lectures are conducted in English. 2/17-2/19, 2027 Lectures are conducted in English. 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	Fall IAB	Fri 2	Ruth Vanbaelen	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. Lectures are conducted in English. face-to-face Details will be given in class or posted on manaba.
1290101	Japanese Culture	1	1.0	1, 2	Fall IAB	Mon 1	Chinami Yamamoto	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 an even number year. Lectures are conducted in English. face-to-face Details will be given in class or posted on manaba.
1290111	Japanese Society	1	1.0	1, 2	Spr AB	Mon 1	Chinami Yamamoto	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. Lectures are conducted in English. face-to-face Details will be given in class or posted on manaba.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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 an odd number year. Lectures are 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	Chinami Yamamoto	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. Lectures are 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	Chinami Yamamoto	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. Lectures are 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	Chinami Yamamoto	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. Lectures are 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	Izumi Egami	<ul style="list-style-type: none"> • 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 Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1290171	Forest	1	1.0	1	SprA	Mon1,2	Tatsuyuki Seino	This lecture will focus on the situation and problems surrounding forests in Japan and other countries including the latest findings and research accumulated research results from the perspectives of natural science (succession, vegetation, genetics, tree diseases, wood use), environment (topography, soil, global warming), recreation, and utilization.	Enrollment is limited to EP Program students only. Lectures are conducted in English. Online (Asynchronous)
1290181	Introduction to Inclusive Smart Society I	1	1.0	1, 2	Fall IAB	by request	Hisae Miyuchi, Hajime Akiyama, Aranha, Claus, Takashi Matsushima	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.	[Pre-registration] [Limited to 200 students] This course requires pre-registration. Please access the "Pre-registration" under the "Course" tab on TWINS. If the number of applicants exceeds the capacity, a lottery will be conducted. After the lottery, please check the "Course registration - Registration status" screen under the "Course" tab on TWINS to confirm if you have been registered for this course. Lectures are conducted in English. Online (Asynchronous) This course is conducted in English. Limited to 200 students. Conducted on-demand, details will be posted on manaba after registration through Twins.
1290191	Introduction to Inclusive Smart Society II	1	1.0	1, 2	Fall IC, Spr Vac	by request	Takeshi Kimura, Takahiro Morio, Tetsuya Mihara, Modar Hassan, Takahiro Sato, Seiji Ono, Shinichi Nagata, Takashi Matsushima	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.	[Pre-registration] [Limited to 200 students] This course requires pre-registration. Please access the "Pre-registration" under the "Course" tab on TWINS. If the number of applicants exceeds the capacity, a lottery will be conducted. After the lottery, please check the "Course registration - Registration status" screen under the "Course" tab on TWINS to confirm if you have been registered for this course. Lectures are conducted in English. Online (Asynchronous) This course is conducted in English. Limited to 200 students. Details will be posted on manaba.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1390111	Living in Japan as Foreign Students	1	1.0	1	Fall IAB	Fri 3	Edson Ioshiaqui Urano, Andrea Ortolani	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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1490011	Topics in Social Sciences	1	1.0	3, 4	Fall IAB	Wed 2	Abu Girma Moges	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.	Lectures are conducted in English. face-to-face
1490014	Inclusive Smart Society PBL	4	1.0	2, 3	Fall I, C, Spr Vac	by request	Toshihiro Kameda, Kyosuke Yamamoto, Takashi Matsushima	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 course "Introduction to Inclusive Smart Society I" is recommended for taking this course.	<p>[Pre-registration] [Limited to 100 students] This course requires pre-registration. Please access the "Pre-registration" under the "Course" tab on TWINS. If the number of applicants exceeds the capacity, a lottery will be conducted. After the lottery, please check the "Course registration - Registration status" screen under the "Course" tab on TWINS to confirm if you have been registered for this course.</p> <p>Lectures are conducted in English. Online (Asynchronous) Online (Synchronous) This course is conducted in English. Limited to 100 students. Details will be posted on manaba. The last class will be conducted online (synchronous). Students in their first and fourth years can also take this course.</p>

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
1490221	Mechatronics Basics and Applications	1	1.0	3, 4	Fall/ABC	Fri/3	Modar Hassan	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. Lectures are conducted in English. Face-to-face Admission limit: up to 20 students. Priority is given to IDE Students.

Course Manager

Requisite
Physical Education

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

Course Number	Course Name	Instructional Type	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2107173	Basic Physical Education Karate	3	0.5	1	Fall IAB	Thu1	Masaki Fumoto	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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. mfumoto@tiu.ac.jp As a rule, students who attend the course for at least two-thirds of the classes will be eligible for credits.
2110133	Basic Physical Education Japanese Archery	3	0.5	1	Fall IAB	Thu1	Makinori Matsuo	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 Work Experience faculty face-to-face elements by gender (equipment) G-course
2115173	Basic Physical Education Judo	3	0.5	1	Fall IAB	Thu1	Hiroataka Okada	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (other) G-course 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	Fall IAB	Thu1	Yasuo Sengoku	The module aims to enjoy exercises in water together with various people. You learn 4 different swimming strokes, skin-diving and water polo through this module.	Face-to-face elements by gender (wear) elements by gender (contact) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2123173	Basic Physical Education Dance	3	0.5	1	Fall IAB	Thu1	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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
2134153	Basic Physical Education Basketball	3	0.5	1	Fall IAB	Thu1	shota Nakazawa	バスケットボールの特性を理解し、シュートやドリブルなどの基礎技術を習得し、仲間と協力しながら習得した技術をゲームで実践しながら学習を進めていく。	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course
2140153	Basic Physical Education Fitness Training	3	0.5	1	Fall IAB	Thu1	Hirokazu Matsuo	Emphasis will be on maintenance of good health and understanding of relationship between physical fitness and health promotion. Acquisition of methods of resistance training, jogging and stretching shall also be addressed for lifelong good health.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course Details will be announced. 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	Fall IAB	Thu1	Kiyonao Hasegawa	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Fall IAB	Thu1	Yasushi Enomoto	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.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (special rule/pair/team) G-course 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

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2121173	Basic Physical Education Softball	3	0.5	1	Fall IAB	Thu1	Takeshi Kaneda	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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
2122153	Basic Physical Education Table Tennis	3	0.5	1	Fall IAB	Thu1	Yuki Nonaka	Students will learn the fundamental techniques of table tennis by exploring their essential principles, while deepening their understanding of movements common to other sports. Through a variety of practice methods and mini-games, the course also focuses on developing communication skills and fostering the spirit of sportsmanship.	Indoor shoes should be brought without fail. Be sure to wear sportswear. Accept experienced students. However, the level of this class is targeted at beginners. Work Experience faculty face-to-face elements by gender (contact) G-course
2125173	Basic Physical Education Tennis	3	0.5	1	Fall IAB	Thu1	Daisuke Mituhashi	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). Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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	Fall IAB	Thu1	Miyuki Fujimoto	Students will engage in New Sports, which refer to organized activities that are different from existing sports and have different philosophies from traditional sports. Through some samples of New Sports, including Bocce Ball, Indiaca, and Unihoc floorball, students will gain basic skills and knowledge to make their life-long active living. The planned activities might be changed in case of inclement weathers (rain, temperature, etc.).	face-to-face elements by gender (contact) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2135153	Basic Physical Education Badminton	3	0.5	1	Fall IAB	Thu1	Masashi Suita	Learning of Badminton skills.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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	Fall IAB	Thu1	Nakaba Akiyama	This course is designed to learn fundamental skills (pass, serve, game play), rules, and team work.	II Face-to-face elements by gender (special rule/pair/team) G-course
2137133	Basic Physical Education Handball	3	0.5	1	Fall IAB	Thu1	Eiko Yamada	Learn a way of the situation solution in individuals, and the group. In addition, develop ability for coordination, through various movements with ball.	Face-to-face elements by gender (special rule/pair/team) G-course 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
2143173	Basic Physical Education Bodywork	3	0.5	1	Fall IAB	Thu1	Toshihiro Kato	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.	Face-to-face G-course 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	Fall IAB	Thu1		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.	Face-to-face G-course

For students in Life and Environmental Sciences

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
---------------	-------------	----------------------------	-------------	--	----------------------------	--------------------------	------------	-----------------	---------

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2107173	Basic Physical Education Karate	3	0.5	1	Fall IAB	Thu1	Masaki Fumoto	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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. mfumoto@tiu.ac.jp As a rule, students who attend the course for at least two-thirds of the classes will be eligible for credits.
2110133	Basic Physical Education Japanese Archery	3	0.5	1	Fall IAB	Thu1	Makinori Matsuo	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 Work Experience faculty face-to-face elements by gender (equipment) G-course
2115173	Basic Physical Education Judo	3	0.5	1	Fall IAB	Thu1	Hiroataka Okada	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (other) G-course 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	Fall IAB	Thu1	Yasuo Sengoku	The module aims to enjoy exercises in water together with various people. You learn 4 different swimming strokes, skin-diving and water polo through this module.	Face-to-face elements by gender (wear) elements by gender (contact) G-course 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	Fall IAB	Thu1	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2134153	Basic Physical Education Basketball	3	0.5	1	Fall AB	Thu1	shota Nakazawa	バスケットボールの特性を理解し、シュートやドリブルなどの基礎技術を習得し、仲間と協力しながら習得した技術をゲームで実践しながら学習を進めていく。	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course
2140153	Basic Physical Education Fitness Training	3	0.5	1	Fall AB	Thu1	Hirokazu Matsuo	Emphasis will be on maintenance of good health and understanding of relationship between physical fitness and health promotion. Acquisition of methods of resistance training, jogging and stretching shall also be addressed for lifelong good health.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course Details will be announced. 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	Fall AB	Thu1	Kiyonao Hasegawa	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Fall AB	Thu1	Yasushi Enomoto	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.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (special rule/pair/team) G-course 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	Fall AB	Thu1	Takeshi Kaneda	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2122153	Basic Physical Education Table Tennis	3	0.5	1	Fall IAB	Thu1	Yuki Nonaka	Students will learn the fundamental techniques of table tennis by exploring their essential principles, while deepening their understanding of movements common to other sports. Through a variety of practice methods and mini-games, the course also focuses on developing communication skills and fostering the spirit of sportsmanship.	Indoor shoes should be brought without fail. Be sure to wear sportswear. Accept experienced students. However, the level of this class is targeted at beginners. Work Experience faculty face-to-face elements by gender (contact) G-course
2125173	Basic Physical Education Tennis	3	0.5	1	Fall IAB	Thu1	Daisuke Mitsuhashi	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). Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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	Fall IAB	Thu1	Miyuki Fujimoto	Students will engage in New Sports, which refer to organized activities that are different from existing sports and have different philosophies from traditional sports. Through some samples of New Sports, including Bocce Ball, Indiaca, and Unihoc floorball, students will gain basic skills and knowledge to make their life-long active living. The planned activities might be changed in case of inclement weathers (rain, temperature, etc.).	face-to-face elements by gender (contact) G-course
2135153	Basic Physical Education Badminton	3	0.5	1	Fall IAB	Thu1	Masashi Suita	Learning of Badminton skills.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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	Fall IAB	Thu1	Nakaba Akiyama	This course is designed to learn fundamental skills (pass, serve, game play), rules, and team work.	II face-to-face elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2137133	Basic Physical Education Handball	3	0.5	1	Fall IAB	Thu1	Eiko Yamada	Learn a way of the situation solution in individuals, and the group. In addition, develop ability for coordination, through various movements with ball.	face-to-face elements by gender (special rule/pair/team) G-course 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
2143173	Basic Physical Education Bodywork	3	0.5	1	Fall IAB	Thu1	Toshihiro Kato	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.	face-to-face G-course 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	Fall IAB	Thu1		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.	face-to-face G-course

Wellness Sports

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2505373	Wellness Sports	3	0.5	1	Fall IC	Intensive	Satoru Tanigawa	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, face-to-face elements by gender (special rule/pair/team) G-course Details will be announced. Be sure to attend an orientation.

For students in Life and Environmental Sciences, BPGI

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2211203	Applied Physical Education Kendo	3	0.5	2	SprAB	Fri2	Takahiro Nabeyama	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course
2214203	Applied Physical Education Shooting Sports	3	0.5	2	SprAB	Fri2	Hitoshi Saga	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.	face-to-face elements by gender (special rule/pair/team) G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2215223	Applied Physical Education Judo	3	0.5	2	SprAB	Fri2	Hiroaki Hiraoka	understanding the principle of the Judo techniques and learn the martial arts through experience.	face-to-face elements by gender (contact) elements by gender (other) G-course Students may wear a T-shirt under the judo uniform. Accessories and other decorative items must be removed.
2216263	Applied Physical Education Jog and walk	3	0.5	2	SprAB	Fri2	Yasushi Enomoto	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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
2217263	Applied Physical Education Swimming	3	0.5	2	SprAB	Fri2	Takaaki Tsunokawa	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.	face-to-face elements by gender (contact) G-course 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	Takaaki Nara	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.	face-to-face elements by gender (special rule/pair/team) G-course
2222223	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Fri2	Shintaro Ando	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.	Work Experience faculty face-to-face elements by gender (contact) G-course
2225223	Applied Physical Education Tennis	3	0.5	2	SprAB	Fri2	Hajime Ohmori	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.	テニスシューズまたはスパイクなしの運動シューズを着用 Work Experience faculty face-to-face G-course 雨天時にはオンラインではなく、座学または雨天時施設での実技を行う。

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2230223	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Fri2	Shinichi Nagata	This course accepts students who need special assistance 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.	Those who were absent more than 1/3 of the class will not be considered for the credit of this class Work Experience faculty face-to-face G-course 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	Taketoshi Saito	"New sports" subjects are not to implement major sports, but to experience various sports events. For example, Flying Disc, Warking, Indiac, G-ball, Ground Golf, Petanque, Long jump rope, and so on.	Classroom will be announced later. face-to-face G-course Details will be announced. 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		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.	face-to-face elements by gender (contact) G-course 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
2237223	Applied Physical Education Handball	3	0.5	2	SprAB	Fri2	Eiko Yamada	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.	face-to-face elements by gender (special rule/pair/team) G-course Available for students related to a cooperation system 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	Toshinobu Kawai	Understand the significance of health and physical fitness, and do training with a combination of resistance training and aerobic exercise.	Work Experience faculty face-to-face G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2241263	Applied Physical Education Flag Football	3	0.5	2	SprAB	Fri2	Hirokazu Matsuo	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.	Work Experience faculty face-to-face G-course Details will be announced. 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	Akihiro Sakamoto	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course
2248263	Applied Physical Education Refresh Movements	3	0.5	2	SprAB	Fri2	Rina Kano	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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.
2211213	Applied Physical Education Kendo	3	0.5	2	FallAB	Fri2	Takahiro Nabeyama	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course
2214213	Applied Physical Education Shooting Sports	3	0.5	2	FallAB	Fri2	Hitoshi Saga	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.	face-to-face G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class
2215233	Applied Physical Education Judo	3	0.5	2	FallAB	Fri2	Hiroaki Hiraoka	understanding the principle of the Judo techniques and lean the martial arts through experience.	face-to-face elements by gender (contact) elements by gender (other) G-course Students may wear a T-shirt under the judo uniform. Accessories and other decorative items must be removed.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2216273	Applied Physical Education Jog and walk	3	0.5	2	FallAB	Fri2	Yasushi Enomoto	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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
2217273	Applied Physical Education Swimming	3	0.5	2	FallAB	Fri2	Takaaki Tsunokawa	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.	face-to-face elements by gender (wear) elements by gender (contact) G-course 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	Takaaki Nara	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.	face-to-face elements by gender (special rule/pair/team) G-course
2222233	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Fri2	Shintaro Ando	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.	Work Experience faculty face-to-face elements by gender (contact) G-course
2225233	Applied Physical Education Tennis	3	0.5	2	FallAB	Fri2	Hajime Ohmori	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.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course
2230233	Applied Physical Education Trim Exercise	3	0.5	2	FallAB	Fri2	Shinichi Nagata	This course accepts students who need special assistance 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.	Those who were absent more than 1/3 of the class will not be considered for the credit of this class Work Experience faculty face-to-face G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2233213	Applied Physical Education New Sports	3	0.5	2	FallAB	Fri2	Taketoshi Saito	"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. face-to-face G-course Details will be announced. 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
2234273	Applied Physical Education Basketball	3	0.5	2	FallAB	Fri2		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.	face-to-face elements by gender (contact) G-course 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	Eiko Yamada	Acquiring fundamental skills and tactics of handball. Learning team work through mini games and handball games.	face-to-face elements by gender (special rule/pair/team) G-course 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	Toshinobu Kawai	Understand the significance of health and physical fitness, and do training with a combination of resistance training and aerobic exercise.	Work Experience faculty face-to-face G-course
2241273	Applied Physical Education Flag Football	3	0.5	2	FallAB	Fri2	Hirokazu Matsuo	Through flag football games, students will improve their tactical knowledge and skills related to flag football and improve their game performance.	Work Experience faculty face-to-face G-course Details will be announced. 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	Akihiro Sakamoto	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 Saturday, November 15th AM. Therefore, the number of class hours will be adjusted.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2248273	Applied Physical Education Refresh Movements	3	0.5	2	Fall AB	Fri2	Rina Kano	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2207243	Applied Physical Education Karate	3	0.5	2	Spr AB	Thu2	Masaki Fumoto	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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. mfumoto@tiu.ac.jp As a rule, students who attend the course for at least two-thirds of the classes will be eligible for credits.
2211243	Applied Physical Education Kendo	3	0.5	2	Spr AB	Thu2	Takahiro Nabeyama	The aim is to develop mind and body through basic practice with equipment up to sparring level, and through practice of etiquette.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) elements by gender (special rule/pair/team) G-course
2214243	Applied Physical Education Shooting Sports	3	0.5	2	Spr AB	Thu2	Hitoshi Saga	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.	face-to-face elements by gender (special rule/pair/team) G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2221243	Applied Physical Education Softball	3	0.5	2	SprAB	Thu2	Takeshi Kaneda	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course
2222203	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Thu2	Yuki Nonaka	Students will deepen their knowledge of sports activities through table tennis. By pursuing a single discipline more deeply using unique training methods, students will gain an understanding of techniques relevant to various other sports. The course also includes participation in mini-games.	Work Experience faculty face-to-face elements by gender (contact) G-course
2223243	Applied Physical Education Dance	3	0.5	2	SprAB	Thu2	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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	Kaoru Maezawa	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.	face-to-face elements by gender (special rule/pair/team) G-course 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
2230243	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Thu2	Akihiro Sakamoto	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.	Work Experience faculty face-to-face G-course
2234203	Applied Physical Education Basketball	3	0.5	2	SprAB	Thu2	shota Nakazawa	Understanding the characteristics of basketball, acquirement of Individual tactics (break opponents, take ball from opponents). Acquirement how to utilize technical and tactical fundamentals in games.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course
2235203	Applied Physical Education Badminton	3	0.5	2	SprAB	Thu2	Chika Tanifuji	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.	face-to-face elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2236243	Applied Physical Education Volleyball	3	0.5	2	SprAB	Thu2	Nakaba Akiyama	This course is designed to learn fundamental skills (pass, serve, spike, block, game play), rules, basic strategies, and team work.	face-to-face elements by gender (special rule/pair/team) G-course
2241223	Applied Physical Education Flag Football	3	0.5	2	SprAB	Thu2	Tsuyoshi Matsumoto	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.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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
2243243	Applied Physical Education Bodywork	3	0.5	2	SprAB	Thu2	Toshihiro Kato	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.	face-to-face elements by gender (contact) G-course 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	Kiyonao Hasegawa	Exercise bouncing in the Swiss ball. Exercise to rotation by the wheel gymnastics. Through a new experience, to refresh the mind and body.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2207253	Applied Physical Education Karate	3	0.5	2	FallAB	Thu2	Masaki Fumoto	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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. mfumoto@tiu.ac.jp As a rule, students who attend the course for at least two-thirds of the classes will be eligible for credits.
2211253	Applied Physical Education Kendo	3	0.5	2	FallAB	Thu2	Takahiro Nabeyama	The aim is to develop sparring skills with a partner with full kendo equipment, and furthermore to develop the mind and body.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) elements by gender (special rule/pair/team) G-course
2214253	Applied Physical Education Shooting Sports	3	0.5	2	FallAB	Thu2	Hitoshi Saga	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.	face-to-face elements by gender (special rule/pair/team) G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class
2221253	Applied Physical Education Softball	3	0.5	2	FallAB	Thu2	Takeshi Kaneda	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course
2222213	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Thu2	Yuki Nonaka	After deepening their knowledge of sports activities and understanding the techniques common to various disciplines, students will engage in advanced games and technical drills. This process aims to foster creative thinking and free-form ideas regarding sports.	Work Experience faculty face-to-face elements by gender (contact) G-course
2223253	Applied Physical Education Dance	3	0.5	2	FallAB	Thu2	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.	Work Experience faculty face-to-face elements by gender (contact) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2225273	Applied Physical Education Tennis	3	0.5	2	Fall AB	Thu2	Kaoru Maezawa	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.	face-to-face elements by gender (special rule/pair/team) G-course 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	Fall AB	Thu2	Akihiro Sakamoto	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.	Work Experience faculty face-to-face G-course
2234213	Applied Physical Education Basketball	3	0.5	2	Fall AB	Thu2	shota Nakazawa	Understanding the characteristics of basketball, acquirement of group tactics (cut play, screen play). Acquirement how to utilize technical and tactical fundamentals, and group tactics in games.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course
2235213	Applied Physical Education Badminton	3	0.5	2	Fall AB	Thu2	Chika Tanifuji	Learning of Badminton skills	face-to-face elements by gender (special rule/pair/team) G-course 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	Fall AB	Thu2	Nakaba Akiyama	This course is designed to learn fundamental skills (pass, serve, spike, block, game play), rules, basic strategies, and team work.	face-to-face elements by gender (special rule/pair/team) G-course
2241233	Applied Physical Education Flag Football	3	0.5	2	Fall AB	Thu2	Tsuyoshi Matsumoto	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.	Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2243253	Applied Physical Education Bodywork	3	0.5	2	Fall AB	Thu2	Toshihiro Kato	We will do the following exercises. (1) Core training (2) Stretching (3) Breathing technique (4) Bony axis training. Sharpen your senses. Increases resistance to stress while communicating with others. And enjoy the exercise itself.	face-to-face elements by gender (contact) G-course 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	Fall AB	Thu2	Kiyonao Hasegawa	Exercise bouncing in the Swiss ball. Exercise to rotation by the wheel gymnastics. Through a new experience, to refresh the mind and body.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2211263	Applied Physical Education Kendo	3	0.5	2	Spr AB	Thu3	Takahiro Nabeyama	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.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) elements by gender (special rule/pair/team) G-course
2212243	Applied Physical Education Golf	3	0.5	2	Spr AB	Thu3	Hitoshi Shiraki	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.	face-to-face G-course Clubs are asked to select clubs for their height.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2213263	Applied Physical Education Soccer	3	0.5	2	SprAB	Thu3	Kazuya Naruse	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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Hitoshi Saga	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.	Face-to-Face elements by gender (special rule/pair/team) G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class
2215263	Applied Physical Education Judo	3	0.5	2	SprAB	Thu3	Takashi Matsui	Understanding the principle of the Judo techniques and lean the martial arts through experience.	I face-to-face elements by gender (contact) elements by gender (other) G-course 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
2221223	Applied Physical Education Softball	3	0.5	2	SprAB	Thu3	Takaaki Nara	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.	face-to-face elements by gender (special rule/pair/team) G-course
2222243	Applied Physical Education Table Tennis	3	0.5	2	SprAB	Thu3	Yuki Nonaka	Students will deepen their knowledge of sports activities through table tennis. By pursuing a single discipline more deeply using unique training methods, students will gain an understanding of techniques relevant to various other sports. The course also includes participation in mini-games.	Work Experience faculty face-to-face elements by gender (contact) G-course
2223263	Applied Physical Education Dance	3	0.5	2	SprAB	Thu3	Motoko Hirayama	"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.	face-to-face elements by gender (contact) G-course 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	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2225203	Applied Physical Education Tennis	3	0.5	2	SprAB	Thu3	Kaoru Maezawa	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.	face-to-face elements by gender (special rule/pair/team) G-course
2230263	Applied Physical Education Trim Exercise	3	0.5	2	SprAB	Thu3	Mayumi Saito	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.	Work Experience faculty face-to-face G-course
2233223	Applied Physical Education New Sports	3	0.5	2	SprAB	Thu3	Miyuki Fujimoto	"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.	face-to-face elements by gender (contact) G-course
2234243	Applied Physical Education Basketball	3	0.5	2	SprAB	Thu3	Takuya Sakamoto	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.	face-to-face elements by gender (equipment) elements by gender (contact) G-course
2235263	Applied Physical Education Badminton	3	0.5	2	SprAB	Thu3	Chika Tanifuji	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.	face-to-face elements by gender (special rule/pair/team) G-course 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	Eiko Yamada	Acquire fundamental skills through games.	face-to-face elements by gender (special rule/pair/team) G-course 短期留学生在受講を希望する際は、原則、初回授業の3日前までに授業担当教員に連絡し受講許可を得る事
2240203	Applied Physical Education Fitness Training	3	0.5	2	SprAB	Thu3	Satoru Tanigawa	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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
2245203	Applied Physical Education Outing Sports	3	0.5	2	SprAB	Thu3		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.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2211273	Applied Physical Education Kendo	3	0.5	2	Fall AB	Thu3	Takahiro Nabeyama	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.	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) elements by gender (special rule/pair/team) G-course
2212253	Applied Physical Education Golf	3	0.5	2	Fall AB	Thu3	Hitoshi Shiraki	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 / ¥4,000 face-to-face G-course Clubs are asked to select clubs for their height.
2213273	Applied Physical Education Soccer	3	0.5	2	Fall AB	Thu3	Kazuya Naruse	The purpose of this class is to understand the depth of football culture. It is also to learn basic tactics through various games.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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	Fall AB	Thu3	Hitoshi Saga	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.	face-to-face elements by gender (special rule/pair/team) G-course In principle, exchange students who wish to take a class must contact the teacher in charge of the class at least seven days prior to the first class and obtain permission to take the class
2215273	Applied Physical Education Judo	3	0.5	2	Fall AB	Thu3	Takashi Matsui	understanding the principle of the Judo techniques and lean the martial arts through experience.	I face-to-face elements by gender (contact) elements by gender (other) G-course 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
2221233	Applied Physical Education Softball	3	0.5	2	Fall AB	Thu3	Takaaki Nara	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.	face-to-face elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2222253	Applied Physical Education Table Tennis	3	0.5	2	FallAB	Thu3	Yuki Nonaka	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.	Work Experience faculty face-to-face elements by gender (contact) G-course
2223273	Applied Physical Education Dance	3	0.5	2	FallAB	Thu3	Motoko Hirayama	"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.	face-to-face elements by gender (contact) G-course 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	Kaoru Maezawa	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.	face-to-face elements by gender (special rule/pair/team) G-course
2230273	Applied Physical Education Trim Exercise	3	0.5	2	FallAB	Thu3	Mayumi Saito	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.	Work Experience faculty face-to-face G-course
2233233	Applied Physical Education New Sports	3	0.5	2	FallAB	Thu3	Miyuki Fujimoto	"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.	face-to-face elements by gender (contact) G-course
2234253	Applied Physical Education Basketball	3	0.5	2	FallAB	Thu3	Takuya Sakamoto	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.	face-to-face elements by gender (equipment) elements by gender (contact) G-course
2235273	Applied Physical Education Badminton	3	0.5	2	FallAB	Thu3	Chika Tanifuji	Learning of Badminton skills	face-to-face elements by gender (special rule/pair/team) G-course 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	Eiko Yamada	Think about individual roles in the team and acquire the ability to enjoy team sports.	face-to-face elements by gender (equipment) elements by gender (contact) elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2240213	Applied Physical Education Fitness Training	3	0.5	2	Fall IAB	Thu3	Satoru Tanigawa	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.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 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
2245213	Applied Physical Education Outing Sports	3	0.5	2	Fall IAB	Thu3		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 Saturday, November 22nd AM. Therefore, the number of class hours will be adjusted.	face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course

For students in IDE

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2313283	Advanced Physical Education Soccer	3	0.5	3	SprAB	Mon4	Masaaki Koido	Understand the characteristics of the sport of soccer and aim to acquire the skills and tactics necessary to enjoy the game.	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 短期留学生在受講を希望する際は、初回授業の3日前までに授業担当教員に連絡し受講許可を得ること また原則先着順で2~3名までとします。
2314283	Advanced Physical Education Shooting Sports	3	1.0	3	SprAB SprC	Mon4 Intensive	Hitoshi Saga	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.	face-to-face G-course Details will be announced. Short-term international students who wish to take a class must, in principle, contact the instructor in charge of the class at least seven days prior to the first class and obtain permission to take the class.
2321283	Advanced Physical Education Softball	3	0.5	3	SprAB	Mon4	Atsushi Kiuchi	ソフトボールにおける安心安全と技能上達を、共生協働の実践を通して目指す。さらに、これらの活動を自己成長の機会として捉える視点を養う。授業は、受講者の技能や体力の多様性に応じて、使用球やルールを柔軟に調整して編成する。評価は技能や体力の優劣によって行わない。	face-to-face elements by gender (special rule/pair/team) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2322283	Advanced Physical Education Table Tennis	3	0.5	3	SprAB	Mon4	Shintaro Ando	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.	Work Experience faculty face-to-face elements by gender (contact) G-course
2323283	Advanced Physical Education Dance	3	0.5	3	SprAB	Mon4	Miwa Zushi	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.	face-to-face elements by gender (contact) G-course
2330283	Advanced Physical Education Trim Exercise	3	0.5	3	SprAB	Mon4	Takashi Fukuda	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.	Work Experience faculty face-to-face G-course
2334303	Advanced Physical Education Basketball	3	0.5	3	SprAB	Mon4	shota Nakazawa	バスケットボールの個人戦術、グループ戦術を習得し、グループ戦術を中心にバスケットボールの特性を活かしたゲームをととして、問題解決能力、協調性を養いながら、バスケットボールの構造を理解できるようにする。	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course
2341343	Advanced Physical Education Flag Football	3	1.0	3	SprAB Sum Vac	Mon4 Intensive	Tsuyoshi Matsumoto	日本フラグフットボール協会公式規則に準じた大会への参加を目指し、チーム・マネージメントについて実践的に学修する。	集中講義と併せて1単位とする Work Experience faculty face-to-face elements by gender (special rule/pair/team) G-course 各チームの男女数が均等になるように男女混合チームを作ります。ゲームにおいては特別ルールを設定し、全員が積極的にゲームに関与できるよう工夫を行います。短期留学生在が受講を希望する際は、原則初回授業の3日前までに授業担当教員に連絡し受講許可を得る事
2313293	Advanced Physical Education Soccer	3	0.5	3	FallAB	Mon4	Masaaki Koido	サッカーにおける個人の技能の向上とともに、戦術やポジションなどのチームとしての戦い方をチームメイトと共有し、戦略的にゲームに臨む楽しさを知る。	Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course 短期留学生在が受講を希望する際は、初回授業の3日前までに授業担当教員に連絡し受講許可を得ること また原則先着順で2・3名までとします。
2321293	Advanced Physical Education Softball	3	0.5	3	FallAB	Mon4	Atsushi Kiuchi	ソフトボールにおける安心安全と技能上達を、共生協働の実践を通して目指す。さらに、これらの活動を自己成長の機会として捉える視点を養う。授業は、受講者の技能や体力の多様性に応じて、使用球やルールを柔軟に調整して編成する。評価は技能や体力の優劣によって行わない。	face-to-face elements by gender (special rule/pair/team) G-course
2322293	Advanced Physical Education Table Tennis	3	0.5	3	FallAB	Mon4	Shintaro Ando	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.	Work Experience faculty face-to-face elements by gender (contact) G-course

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
2323293	Advanced Physical Education Dance	3	0.5	3	Fall IAB	Mon4	Miwa Zushi	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.	face-to-face elements by gender (contact) G-course
2329293	Advanced Physical Education Track and Field	3	1.0	3	Fall IAB Fall IC	Mon4 Intensive	Satoru Tanigawa	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. Work Experience faculty face-to-face elements by gender (contact) elements by gender (special rule/pair/team) G-course Details will be announced.
2330293	Advanced Physical Education Trim Exercise	3	0.5	3	Fall IAB	Mon4	Takashi Fukuda	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.	Work Experience faculty face-to-face G-course
2334313	Advanced Physical Education Basketball	3	0.5	3	Fall IAB	Mon4	shota Nakazawa	バスケットボールの個人戦術、グループ戦術を習得し、グループ戦術を中心にバスケットボールの特性を活かしたゲームをとおして、問題解決能力、協調性を養いながら、バスケットボールの構造を理解できるようになる。	Work Experience faculty face-to-face elements by gender (equipment) elements by gender (contact) G-course

Japanese Required Courses

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
3990312	Japanese 101	2	2.0	1	Fall/AB	Mon3 Wed1 Fri4	Ruth Vanbaelen	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. Lectures are 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	Fall/AB	Mon3 Wed1 Fri4	Ayako Ishigami, Ruth Vanbaelen	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. Lectures are 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	Fall/AB	Mon3 Wed1 Fri4	Ruth Vanbaelen, Chinami Yamamoto	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. Lectures are conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
3990372	Japanese 401	2	2.0	1, 2	Fall IAB	Mon3 Wed1 Fri4	Takashi Tanaka, Ruth Vanbaelen	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. Lectures are 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/Fri 3	Ruth Vanbaelen	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. Lectures are 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/Fri 3	Ayako Ishigami, Ruth Vanbaelen	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. Lectures are conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.
3990462	Japanese 302	2	2.0	1, 2	SprAB	Wed2 Mon/Fri 3	Ruth Vanbaelen, Chinami Yamamoto	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. Lectures are conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
3990482	Japanese 402	2	2.0	1, 2	SprAB	Wed2 Mon/Fri 3	Takashi Tanaka, Ruth Vanbaelen	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. Lectures are conducted in English. face-to-face Details about the class format will be posted on manaba or given in class.

Course Manager

Requisite
Information Literacy

Information Literacy

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
6190101	Information Literacy (Lectures)	1	1.0	1	Fall A	Tue3, 4	Simona Mirela Vasilache	In this course, along with understanding the basic concepts of information and social positioning of computers and the Internet, students learn about information representation and computation, the principles and structure of computers, software principles, and the mechanisms of the Internet. In addition, students learn about information ethics, information security, and intellectual property rights, necessary for safe and meaningful use of the Internet.	For Students in English Program. Lectures are conducted in English. Online (partially face-to-face) Week 5 will be conducted in person. Check manaba for details.
6490102	Information Literacy (Exercises)	2	1.0	1	Fall B	Tue3, 4	Simona Mirela 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. Lectures are conducted in English. face-to-face
6590102	Data Science	2	2.0	1	SprAB	Tue3, 4	Simona Mirela 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. Lectures are conducted in English. face-to-face (partially online)

Course Manager

Requisite
Art

Art

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
4004013	Workshops on Japanese-style Painting	3	1.0	1 - 4	SprAB	Mon4, 5	Tomomi Suwa	“Moshu (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 moshu, 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 10 persons. Work Experience faculty face-to-face
4005013	Workshops on Sculpture	3	1.0	1 - 4	FallAB	Thu4, 5	Shinji Miyasaka, Hisaaki Ohara	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-dimensional format grasped through actual production.	人数制限あり Work Experience faculty face-to-face

Foundation Subjects for Major (Core Electives)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE21041	Academic Writing for Social Sciences I	1	2.0	1, 2	FallAB	Mon5, 6	Devena Penelope Haggis	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. face-to-face equivalent to "English Writing I" in 2010-2012.
BE21051	Academic Writing for Social Sciences II	1	2.0	1, 2	SprAB	Mon5, 6	Devena Penelope Haggis	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. This course is complementary to BE21041 (Academic Writing for Social Sciences I).	Lectures will be conducted in English. Non-native speakers of English are encouraged to apply. Lecture content may vary slightly from the syllabus depending on the flow of the course/class. Lectures are conducted in English. face-to-face
BE21071	Japanese Learning Support I	1	2.0	1, 2	FallAB	Mon4, 5	Takashi Tanaka	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. face-to-face
BE21081	Japanese Learning Support II	1	2.0	1, 2	FallC	Mon4, 5 Fri3, 4	Takashi Tanaka	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. face-to-face
BE21091	Japanese Learning Support III	1	2.0	1, 2	SprAB	Mon4, 5	Takashi Tanaka	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. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE21121	Contemporary World Politics	1	2.0	1, 2	Fall/AB	Intensive	Anar Koli	<p>This course is an introductory course in politics and political thought of a globalized world. The course begins with fundamental debates in globalization and world politics and moves toward how political science tries to understand and explain such debates and cross-country differences. The course introduces students to fundamental political theories, focusing on domestic and global politics. Bringing together political thought, political philosophy, comparative politics, and international relations, this course presents the overall realities of contemporary global politics.</p> <p>This class offers a different way of teaching global politics. Conventionally, we usually start with a series of issues or various theoretical approaches. Or, sometimes, offer some combination of the two. Here, we are not excluding those approaches. However, we will not prioritize them. Instead, we will begin with questions. In the study of politics and global politics, we come up with a series of questions about how to conceptualize the world, and these questions are placed within it. Sometimes, we are motivated by a desire for change. Many of these questions concern how we live in a world where so many people are brought together in such proximity. Who are 'we' anyway? Are we individuals, first and foremost, or social beings? What forms of identity do we adopt and why? What happens when things go wrong, and we end up with wars, conflicts, or severe economic inequalities?</p> <p>The approach that this class will take questions like these as its starting point. We use them to draw out the concrete historical and geographical locations within which the questions are situated, examine the challenge and complexity of the response, and emphasize the need to think carefully about the broader assumptions or theoretical approaches that underlie the questions we ask as well as the responses we give. Each session thus follows the same structure, with sections examining the question, an example, what responses there might be, and broader issues raised.</p> <p>This class requires your full engagement. Your questions are not just welcomed; they are the driving force of our discussions. Taking your questions seriously fosters engagement, empowers and inspires students, and provides a sound basis for further study.</p>	Course information will be announced later Lectures are conducted in English. G-course face-to-face
BE21131	Introduction to Programming	1	2.0	1, 2	Spr/AB	Tue1,2	Simona Mirela Vasilache	<p>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.</p>	Lectures are conducted in English. G-course face-to-face The number of students is limited to 30.
BE21181	Sociology of Contemporary Japan	1	2.0	1, 2				<p>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.</p>	Limited to 35 students. Open in an odd number year. Identical to BB11871. Lectures are conducted in English. G-course face-to-face Equivalent to "Social Issues in Contemporary Japan (BE21181)"
BE21201	International Economics	1	2.0	2	Annual	by appointment		<p>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.</p>	Limited to students in the School of Social and International Studies. Identical to BC51071. Lectures are conducted in English. Details will be announced. 2026年度開講未定

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE21231	Intro-Intermediate Macroeconomics	1	2.0	2	FallAB	Thu1,2	Hisahiro Naito	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.	Identical to BC51081. Lectures are conducted in English. face-to-face Only those who are able to participate in face-to-face classes are eligible.
BE21241	Media Politics	1	2.0	1 – 3	FallAB	Tue5, 6	Leslie Tkach Kawasaki	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 visual images through various media channels, including the internet and social media by political actors. International comparisons are encouraged and expected.	JTP Identical to BC51161. Lectures are conducted in English. face-to-face
BE21371	Introduction to Law	1	2.0	1, 2	SprAB	Mon1,2	Andrea Ortolani	This course is designed to provide students with a comprehensive introduction to law. It presents the character and development of law in historical and anthropological perspective. The course requires the active participation of the students.	The number of students is limited to 25. Lectures are conducted in English. face-to-face
BE21381	Introduction to Political Science	1	2.0	1, 2	FallAB	Fri5, 6	Y. Zhai	In this course, we will discuss the major concepts and theories of political science. It covers broad topics in this discipline, including what is politics, state building, government, political regimes, nationalism, globalization, and human rights.	Lectures are conducted in English. face-to-face
BE21391	Introduction to Sociology	1	2.0	1, 2	FallAB	Thu5, 6	Edson Ioshiaqui Urano	This course aims to introduce students to basic concepts of Sociology, as well as key authors. It will discuss topics of paramount importance for the understanding of contemporary society, such as globalization, international migration, diversity, family and social inequality.	Bruce, Steve (2018) Sociology: A Very Short Introduction, Oxford University Press. Giddens, A. and Sutton, P.W. (2017) Sociology 8th Edition, Polity. Lectures are conducted in English. face-to-face
BE21511	Academic Discussion Seminar	1	2.0	1, 2	FallAB	Thu3, 4	Simona Mirela Vasilache	This course wishes to engage students in active discussions on various contemporary topics, ranging from politics, economics, science to culture, entertainment etc. The students are encouraged to express and defend their opinions openly and actively, as well as propose issues to be discussed.	Lectures are conducted in English. G-course face-to-face interdepartmental course The number of students is limited to 30.
BE21831	Quantitative Methods for Social Sciences	1	2.0	1, 2	FallAB	Fri1, 2	Y. Zhai	This course introduces students to basic statistical knowledge and the main methods of quantitative research analysis. Through the practice of using software on a computer, students are equipped with basic quantitative analysis skills.	Lectures are conducted in English. face-to-face The number of students is limited to 20. Due to a limited number of available software licenses, priority will be given to second- and third-year students enrolled in the TISS program.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE21861	Introduction to Economics	1	2.0	1, 2	SprAB	Tue5,6	Abu Girma Moges	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). Lectures are conducted in English. G-course face-to-face
BE21871	Monetary Economics	1	2.0	3, 4	FallAB	Tue5,6	Abu Girma Moges	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. Lectures are conducted in English. G-course face-to-face

Major Subjects (Core Electives)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22021	Japan and the World	1	2.0	2 - 4	FallAB	Fri3,4	Liang Pan	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.	Open in an even number year. Identical to BC11961. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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.	Open in an odd number year. Identical to BC11911. Lectures are conducted in English. face-to-face (partially online)
BE22051	Public Policy	1	2.0	2 - 4	SprAB	Thu4, 5	Edson Ioshiaqui Urano	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. Open in an even number year. Identical to BB11881 and BC11461. Lectures are conducted in English. G-course face-to-face
BE22071	International Politics	1	2.0	2 - 4	FallAB	Tue5, 6	Takafumi Ohtomo	This course examines various theories and cases to understand the dynamics of international politics.	Identical to BC11121. Lectures are conducted in English. face-to-face
BE22161	Comparative Law I: Legal Traditions and Cultures	1	2.0	2 - 4	FallAB	Wed1, 2	Andrea Ortolani	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. Lectures are conducted in English. face-to-face
BE22171	Comparative Law II: History and Methods	1	2.0	3, 4	SprAB	Wed1, 2	Andrea Ortolani	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. Lectures are conducted in English. face-to-face
BE22181	Japanese Law I: Introduction to Japanese Law	1	2.0	3, 4	FallAB	Mon3, 4	Andrea Ortolani	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. Lectures are conducted in English. face-to-face
BE22191	Japanese Law II: The Supreme Court of Japan	1	2.0	3, 4	SprAB	Mon3, 4	Andrea Ortolani	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.	Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22221	Japanese Economy	1	2.0	2 - 4	Annual	by appoint- ment		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.	Identical to BC11881. Lectures are conducted in English. Details will be announced. 2026年度開講未定
BE22231	Econometrics	1	2.0	2 - 4	Annual	by appoint- ment		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.	Identical to BC12061. Lectures are conducted in English. Details will be announced. 2026年度開講未定
BE22241	Economic History	1	2.0	2 - 4	Fall IAB	Mon3, 4	Hidenao Takahashi	The purpose of this lecture is to examine both the basic discussion of the history of economic development in Europe and the development of the Japanese economy from the 19th century to the present. Please acquire the attitude of examining contemporary characteristics from a historical perspective.	This class will be lectured in English. Identical to BB41541. Lectures are conducted in English. face-to-face
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.	Open in an odd number year. Identical to BB41601, BC11411, and FH25051. Lectures are conducted in English. face-to-face
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). Identical to BC12352. Lectures are conducted in English. Not open in 2026. Work Experience faculty face-to-face
BE22302	Financing for Development	2	2.0	2 - 4	SprAB	Thu3, 4	Hideaki Suzuki	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.	Identical to BC12342. Work Experience faculty face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22321	Statistics	1	2.0	2	Annual	by appoint- ment		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。Identical to BC51181. Lectures are conducted in English. Details will be announced. 2026年度開講未定
BE22391	International Human Rights Law	1	2.0	2 - 4	FallIC	Tue1, 2 Thu3, 4	Hajime Akiyama	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. Identical to BB28071. Lectures are conducted in English. face-to-face
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) Open in an odd number year. Identical to BB11861 and BC11471. Lectures are conducted in English. G-course face-to-face
BE22451	Social Development	1	2.0	2 - 4	FallIAB	Wed1, 2	Midori Matsushima	People's well-being cannot be achieved by economic growth alone, and the important role of social development has become 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.	Open in an even number year. Identical to BC12221. Lectures are conducted in English. face-to-face Course in 2022. Biennial Course (offered in odd years)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22471	Globalization and Development	1	2.0	2 - 4	SprBC	Intensive	Anar Koli	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. Academic goal: To help promote the TISS Program' s objective of developing global citizens who can respond to the needs of a global society.	Course information will be announced later Identical to BC11351. Lectures are conducted in English. G-course face-to-face
BE22501	Linguistic Anthropology	1	2.0	2 - 4	SprAB	Tue1,2	Risako Ide	Linguistic anthropology is a study of how language shapes and is shaped by culture, society, and human interaction. It examines the ways people use language to construct identities, convey cultural norms, and influence power dynamics. We will learn the roles and functions of language in creating universal as well as cultural-specific worldviews, while addressing issues of language death, revitalization, and the impact of globalization on the ways in which we live our lives as linguistic beings.	First period only in Room 3A403 Identical to BC11511. Lectures are conducted in English. face-to-face (former Anthropological Linguistics)
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.	Open in an odd number year. Identical to BC12241. Lectures are conducted in English. face-to-face (partially online)
BE22551	Outline of Japanese Education	1	2.0	2 - 4	Fall IAB	Tue3,4	Masako Shibata	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.	Open in an even number year. Identical to BC12251. Lectures are conducted in English. face-to-face (partially online)
BE22581	Sociology of Migration	1	2.0	2 - 4	Fall IAB	Thu3,4	Edson Ioshiaqui Urano	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. Open in an even number year. Lectures are conducted in English. G-course face-to-face Biennial Course (offered in even years)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22591	Introduction to International Law	1	2.0	1, 2	Fall IAB	Thu3, 4	Ziaeddin Seyed Madani	This course provides a comprehensive introduction to the foundational principles and structures of international law. It explores the sources of international law, including treaties, customary law, and general principles, and examines how states, international organizations, and individuals interact within the international legal framework. Through case studies and discussions, students will gain insights into the legal mechanisms that govern global issues and resolve disputes between states. The course serves as a stepping stone for further study in specialized areas of international law.	Identical to BC16331. Lectures are conducted in English. face-to-face
BE22681	International Environmental Law	1	2.0	1, 2	SprAB	Thu3, 4	Ziaeddin Seyed Madani	This course delves into the legal frameworks and principles crafted to address global environmental challenges, including climate change, biodiversity conservation, pollution control, and sustainable development. It examines key treaties, such as the Paris Agreement and the Convention on Biological Diversity (CBD), the UN Agreement on Biodiversity beyond National Jurisdiction (BBNJ Agreement), alongside the role of international institutions and state responsibility in ensuring environmental protection. The course also considers the intersection of environmental law with other key branches of international law such as human rights law, law of the sea, and economic development.	Lectures are conducted in English. face-to-face
BE22691	International Polar Law	1	2.0	1, 2				This course focuses on the unique legal regimes governing the Arctic and the Antarctic. It examines key issues concerning the polar regions such as sovereignty, territorial claims, resource management, environmental conservation, and the rights and stance of the Indigenous peoples. The course also explores the legal frameworks established by treaties and institutions including the Antarctic Treaty System (ATS), the Arctic Council and the binding agreements adopted under its auspices. Moreover, it highlights the role of international cooperation in addressing challenges such as climate change, shipping, and biodiversity in fragile polar ecosystems. The course will touch on crosscutting issues with other branches of international law such as environmental law, law of the sea, human rights law, and water law.	Lectures are conducted in English. Not open in 2026. face-to-face
BE22761	International Humanitarian Law	1	2.0	1, 2	Fall IAB	Thu5, 6	Ziaeddin Seyed Madani	This course offers an in-depth exploration of International Humanitarian Law (IHL), focusing on the legal frameworks designed to protect individuals during armed conflicts. Students will study the core principles of IHL, including the Geneva Conventions, the distinction between combatants and civilians, and the treatment of war crimes. The course will also tackle contemporary issues such as the role of non-state actors, and humanitarian interventions. Through case analyses and discussions, students will develop a critical understanding of the legal dimensions of warfare and conflict resolution. Depending on the number of students, they may require to make oral presentations (individually or within teams).	Identical to BC16341. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22771	European Human Rights Law	1	2.0	2 - 4	Fall AB	Tue3, 4	Tsubasa Shinohara	This lecture will offer a foundational understanding of European human rights law as developed by the Council of Europe (CoE) and the European Court of Human Rights (ECtHR). This lecture focuses on the rights and freedoms guaranteed by the ECtHR.	Lectures are conducted in English. face-to-face (partially online)
BE22781	International Law of the Sea	1	2.0	1, 2	Spr AB	Thu5, 6	Ziaeddin Seyed Madani	This course provides an in-depth examination of the legal framework governing the world's oceans, with a focus on the 1982 United Nations Convention on the Law of the Sea (UNCLOS) also known as the 'Constitution of the Oceans'. Topics include maritime zones, such as territorial seas, exclusive economic zones (EEZs), and the high seas, as well as navigation rights such as the legal regime of straits used for international navigation, resource exploitation, marine environmental protection, marine scientific research (MSR), and dispute settlement and conflict resolution mechanisms in international law of the sea. Other key relevant international instruments such as the Agreement on Biodiversity beyond National Jurisdiction (BBNJ Agreement) will also be examined. While the course highlights the role of international law in ensuring equitable and sustainable use of ocean resources, it will touch upon crosscutting areas of other branches of international law such as international humanitarian law (IHL), human rights law, environmental law, and water law.	Lectures are conducted in English. face-to-face
BE22791	Political Psychology	1	2.0	2, 3				Political psychology is an interdisciplinary academic field dedicated to understand politics through a lens of psychology. It aims to link individual personality with group dynamics and political process by investigating how contexts affect and shape people's beliefs, motivation, perception, cognition, information processing, and attitude formation.	Lectures are conducted in English. Not open in 2026. The number of students is limited to 25.
BE22821	History of Economic Thought	1	2.0	2 - 4	Fall AB	Thu5, 6	Abu Girma Moges	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, evolution, arguments, and philosophy of economics and the economists behind such powerful ideas.	Identical to BC16021. Lectures are conducted in English. face-to-face
BE22851	Mathematical Economics	1	2.0	2 - 4	Spr AB	Tue1, 2	Masako Ikefuji	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) Identical to BB41561 and BC16011. Lectures are conducted in English. Online (Asynchronous)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE22861	Health Economics	1	2.0	2 - 4	SprAB	Thu5,6	Abu Girma Moges	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.	Identical to BC12921. Lectures are conducted in English. face-to-face
BE22871	Contemporary Issues in Developing Countries	1	2.0	2 - 4	FallAB	Fri4,5	Yuko Nakano	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.	Identical to BB41401 and BC12121. Lectures are conducted in English. face-to-face
BE22981	Psychology of Family Violence	1	1.0	2 - 4	Sum Vac	Intensive	Chie Maekoya	This course provides students with a basic overview of family violence from victimological and psychosocial perspective. It mainly covers child abuse and spouse 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.	Lectures are conducted in English. face-to-face Same as "G30 Special Lecture VIII (BE22981)" in AY2019 and before.
BE22991	Nationality and Statelessness	1	1.0	2 - 4	FallC	Thu5,6	Hajime Akiyama	This course examines issues related to nationality and statelessness in Japan and the world and discusses the role of nationality in this globalised era.	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. Lectures are conducted in English. face-to-face
BE31103	Internship I	3	2.0	2 - 4	Annual	by request	Edson Ioshiaqui Urano	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. Lectures are conducted in English. GDP face-to-face
BE31113	Internship II	3	1.0	2 - 4	Annual	by request	Edson Ioshiaqui Urano	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. Lectures are conducted in English. GDP face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE31133	Internship III	3	1.0	4	SprAB	by request	Edson Ioshiaqui Urano	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. Lectures are conducted in English. ODP face-to-face

Major Subjects (Required Courses)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE12102	Seminar A	2	1.0	3	FallAB	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Hajime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars A1 to A6. Students who register for Seminar A1, A2, A3, A4, A5 or A6 cannot register for Seminar A.	Lectures are conducted in English. face-to-face
BE12112	Seminar A1	2	1.0	3	FallAB	by request	Andrea Ortolani	Students who register for Seminar A1 cannot register for Seminar A, A2, A3, A4, A5 and A6.	Monday 5,6 (In principle) Lectures are conducted in English. face-to-face
BE12122	Seminar A2	2	1.0	3	FallAB	by request	Abu Girma Moges	Students who register for Seminar A2 cannot register for Seminar A, A1, A3, A4, A5 and A6.	Lectures are conducted in English. face-to-face
BE12132	Seminar A3	2	1.0	3	FallAB	by request	Y. Zhai	Students who register for Seminar A3 cannot register for Seminar A, A1, A2, A4, A5 and A6.	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12142	Seminar A4	2	1.0	3	FallAB	by request	Edson Ioshiaqui Urano	Students who register for Seminar A4 cannot register for Seminar A, A1, A2, A3, A5 and A6.	Lectures are conducted in English. face-to-face
BE12152	Seminar A5	2	1.0	3	FallAB	by request	Simona Mirela Vasilache	Students who register for Seminar A5 cannot register for Seminar A, A1, A2, A3, A4 and A6.	Lectures are conducted in English. face-to-face
BE12162	Seminar A6	2	1.0	3	FallAB	by request	Ziaeddin Seyed Madani	Students who register for Seminar A6 cannot register for Seminar A, A1, A2, A3, A4, and A5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face
BE12202	Seminar B	2	1.0	3	FallC	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Hajime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars B1 to B6. Students who register for Seminar B1, B2, B3, B4, B5 or B6 cannot register for Seminar B.	Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE12212	Seminar B1	2	1.0	3	Fall C	by request	Andrea Ortolani	Students who register for Seminar B1 cannot register for Seminar B, B2, B3, B4, B5 and B6.	Monday 5,6 (In principle) Lectures are conducted in English. face-to-face
BE12222	Seminar B2	2	1.0	3	Fall C	by request	Abu Girma Moges	Students who register for Seminar B2 cannot register for Seminar B, B1, B3, B4, B5 and B6.	Lectures are conducted in English. face-to-face
BE12232	Seminar B3	2	1.0	3	Fall C	by request	Y. Zhai	Students who register for Seminar B3 cannot register for Seminar B, B1, B2, B4, B5 and B6	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12242	Seminar B4	2	1.0	3	Fall C	by request	Edson Ioshiaqui Urano	Students who register for Seminar B4 cannot register for Seminar B, B1, B2, B3, B5 and B6.	Lectures are conducted in English. face-to-face
BE12252	Seminar B5	2	1.0	3	Fall C	by request	Simona Mirela Vasilache	Students who register for Seminar B5 cannot register for Seminar B, B1, B2, B3, B4 and B6.	Lectures are conducted in English. face-to-face
BE12262	Seminar B6	2	1.0	3	Fall C	by request	Ziaeddin Seyed Madani	Students who register for Seminar B6 cannot register for Seminar B, B1, B2, B3, B4, and B5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face
BE12302	Seminar C	2	1.0	3	SprAB	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Hajime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars C1 to C6. Students who register for Seminar C1, C2, C3, C4, C5 or C6 cannot register for Seminar C.	Lectures are conducted in English. face-to-face
BE12312	Seminar C1	2	1.0	3	SprAB	by request	Andrea Ortolani	Students who register for Seminar C1 cannot register for Seminar C, C2, C3, C4, C5 and C6.	Monday 5,6 (In principle) Lectures are conducted in English. face-to-face
BE12322	Seminar C2	2	1.0	3	SprAB	by request	Abu Girma Moges	Students who register for Seminar C2 cannot register for Seminar C, C1, C3, C4, C5 and C6.	Lectures are conducted in English. face-to-face
BE12332	Seminar C3	2	1.0	3	SprAB	by request	Y. Zhai	Students who register for Seminar C3 cannot register for Seminar C, C1, C2, C4, C5 and C6	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12342	Seminar C4	2	1.0	3	SprAB	by request	Edson Ioshiaqui Urano	Students who register for Seminar C4 cannot register for Seminar C, C1, C2, C3, C5 and C6.	Lectures are conducted in English. face-to-face
BE12352	Seminar C5	2	1.0	3	SprAB	by request	Simona Mirela Vasilache	Students who register for Seminar C5 cannot register for Seminar C, C1, C2, C3, C4 and C6.	Lectures are conducted in English. face-to-face
BE12362	Seminar C6	2	1.0	3	SprAB	by request	Ziaeddin Seyed Madani	Students who register for Seminar C6 cannot register for Seminar C, C1, C2, C3, C4, and C5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE12402	Seminar D	2	1.0	4	Fall AB	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Hajime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars D1 to D6. Students who register for Seminar D1, D2, D3, D4, D5 or D6 cannot register for Seminar D.	Lectures are conducted in English. face-to-face
BE12412	Seminar D1	2	1.0	4	Fall AB	by request	Andrea Ortolani	Students who register for Seminar D1 cannot register for Seminar D, D2, D3, D4, D5 and D6.	Monday 5, 6 (In principle) Lectures are conducted in English. face-to-face
BE12422	Seminar D2	2	1.0	4	Fall AB	by request	Abu Girma Moges	Students who register for Seminar D2 cannot register for Seminar D, D1, D3, D4, D5 and D6.	Lectures are conducted in English. face-to-face
BE12432	Seminar D3	2	1.0	4	Fall AB	by request	Y. Zhai	Students who register for Seminar D3 cannot register for Seminar D, D1, D2, D4, D5 and D6	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12442	Seminar D4	2	1.0	4	Fall AB	by request	Edson Ioshiaqui Urano	Students who register for Seminar D4 cannot register for Seminar D, D1, D2, D3, D5 and D6.	Lectures are conducted in English. face-to-face
BE12452	Seminar D5	2	1.0	4	Fall AB	by request	Simona Mirela Vasilache	Students who register for Seminar D5 cannot register for Seminar D, D1, D2, D3, D4 and D6.	Lectures are conducted in English. face-to-face
BE12462	Seminar D6	2	1.0	4	Fall AB	by request	Ziaeddin Seyed Madani	Students who register for Seminar D6 cannot register for Seminar D, D1, D2, D3, D4, and D5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face
BE12502	Seminar E	2	1.0	4	Fall C	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Hajime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars E1 to E6. Students who register for Seminar E1, E2, E3, E4, E5 or E6 cannot register for Seminar E.	Lectures are conducted in English. face-to-face
BE12512	Seminar E1	2	1.0	4	Fall C	by request	Andrea Ortolani	Students who register for Seminar E1 cannot register for Seminar E, E2, E3, E4, E5 and E6.	Monday 5, 6 (In principle) Lectures are conducted in English. face-to-face
BE12522	Seminar E2	2	1.0	4	Fall C	by request	Abu Girma Moges	Students who register for Seminar E2 cannot register for Seminar E, E1, E3, E4, E5 and E6.	Lectures are conducted in English. face-to-face
BE12532	Seminar E3	2	1.0	4	Fall C	by request	Y. Zhai	Students who register for Seminar E3 cannot register for Seminar E, E1, E2, E4, E5 and E6	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12542	Seminar E4	2	1.0	4	Fall C	by request	Edson Ioshiaqui Urano	Students who register for Seminar E4 cannot register for Seminar E, E1, E2, E3, E5 and E6.	Lectures are conducted in English. face-to-face
BE12552	Seminar E5	2	1.0	4	Fall C	by request	Simona Mirela Vasilache	Students who register for Seminar E5 cannot register for Seminar E, E1, E2, E3, E4 and E6.	Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE12562	Seminar E6	2	1.0	4	Fall C	by request	Ziaeddin Seyed Madani	Students who register for Seminar E6 cannot register for Seminar E, E1, E2, E3, E4, and E5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face
BE12602	Seminar F	2	1.0	4	SprAB	by request	Each Course Instructor of School of Social and International Studies (other than English Program Instructors), Haj ime Akiyama	Seminar under supervision of instructors who are affiliated with School of Social and International Studies, but who are not offering Seminars F1 to F6. Students who register for Seminar F1, F2, F3, F4, F5 or F6 cannot register for Seminar F.	Lectures are conducted in English. face-to-face
BE12612	Seminar F1	2	1.0	4	SprAB	by request	Andrea Ortolani	Students who register for Seminar F1 cannot register for Seminar F, F2, F3, F4, F5 and F6.	Moday 5,6 (In principle) Lectures are conducted in English. face-to-face
BE12622	Seminar F2	2	1.0	4	SprAB	by request	Abu Girma Moges	Students who register for Seminar F2 cannot register for Seminar F, F1, F3, F4, F5 and F6.	Lectures are conducted in English. face-to-face
BE12632	Seminar F3	2	1.0	4	SprAB	by request	Y. Zhai	Students who register for Seminar F3 cannot register for Seminar F, F1, F2, F4, F5 and F6	Friday 3 period (In principle) Lectures are conducted in English. face-to-face
BE12642	Seminar F4	2	1.0	4	SprAB	by request	Edson Ioshiaqui Urano	Students who register for Seminar F4 cannot register for Seminar F, F1, F2, F3, F5 and F6.	Lectures are conducted in English. face-to-face
BE12652	Seminar F5	2	1.0	4	SprAB	by request	Simona Mirela Vasilache	Students who register for Seminar F5 cannot register for Seminar F, F1, F2, F3, F4 and F6.	Lectures are conducted in English. face-to-face
BE12662	Seminar F6	2	1.0	4	SprAB	by request	Ziaeddin Seyed Madani	Students who register for Seminar F6 cannot register for Seminar F, F1, F2, F3, F4, and F5.	Friday 2 period (In principle) Lectures are conducted in English. face-to-face
BE12918	Graduation Thesis	8	6.0	3, 4	Annual	by request	Each Course Instructor of International Social Sciences Program & Urano, Moges, Vasilache, Ortolani, Zhai, Madani	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. Lectures are conducted in English. face-to-face
BE12928	Graduation Thesis	8	6.0	3	Spring Semester	by request	Each Course Instructor of International Social Sciences Program & Urano, Moges, Vasilache, Ortolani, Zhai, Madani	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. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
BE12938	Graduation Thesis	8	6.0	4	Spring Semester	by request	Each Course Instructor of International Social Sciences Program & Urano, Moges, Vasilache, Ortolani, Zhai, Madani	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. Lectures are conducted in English. face-to-face

School of Life and Environmental Sciences

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG02011	Physics	1	1.0	1	FallAB	Thu4	Marcos Antonio das Neves, Mito Kokawa	Introduction to physics for life and environmental sciences. Basic areas of mechanics, thermodynamics, and waves will be covered.	Lectures are conducted in English. face-to-face
EG02021	Mathematics	1	1.0	1	FallAB	Wed2	Ahamed Tofael	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.	Lectures are conducted in English. face-to-face
EG02031	Statistics	1	1.0	2	FallC	Tue2 Fri1	Louis John Irving	Introduction to statistics for life and environmental sciences.	Lectures are 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	Wed2	Ahamed Tofael	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.	Lectures are conducted in English. face-to-face
EG02211	Chemistry I	1	1.0	1	FallA	Tue/Fri 6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face
EG02221	Chemistry II	1	1.0	1	FallB	Tue/Fri 6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face
EG02231	Chemistry III	1	1.0	1	FallC	Tue5 Thu6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face

College of Biological Sciences

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EB50171	Animal Systematics II	1	1.0	2, 3	SprAB	Mon3	Hiroshi Wada	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 an even number year. Lectures are 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	Ken-ichiro Ishida	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. Lectures are 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	Takeshi Nakayama	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. Lectures are 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	Takeshi Nakayama, hidekazu kuwayama, Akinori Yabuki, Yosuke Degawa, Takashi Shiratori	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. Lectures are conducted in English. Biodiversity course face-to-face EG39101 credit holders are ineligible.
EB59141	Vertebrate Morphology	1	1.0	2, 3	FallC	Thu4,5	Daichi Suzuki, 十織 矢野, Tatsuya Hirasawa	The morphology of various vertebrates is compared and its evolutionary biological background is explained. In particular, the ancestors of vertebrates, fin morphology of teleosts, morphological evolution associated with terrestrialization, and morphological evolution of land vertebrates 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	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EB59151	Vertebrate Evolution	1	1.0	2 - 4	Fall Fall B	Mon3	Louis John Irving	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. Lectures are conducted in English. Biodiversity course GloBE Course face-to-face EB59131 is ineligible.
EB60014	Programming I	4	1.0	2, 3	Fall AB	Thu1	Yukihiko Tokunaga (Toquenaga)	In this lecture, students learn programming techniques for manipulating a variety of data. They will also learn simulation techniques with individual-based models. The programming language used is Ruby.	Lectures are conducted in English. Computational Biology & Bioinformatics Course Online (Synchronous) EG20014 credit holders are ineligible.
EB62011	Genome Biology I	1	1.0	2, 3	Spr AB	Tue1	hidekazu kuwayama	Lectures will cover basic knowledge on the structure and function of the genome, as well as technologies for DNA and genome analyses.	Lectures are 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	Spr AB	Mon2	Yuji Inagaki	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 Lectures are conducted in English. Online (partially face-to-face) Computational Biology & Bioinformatics Course GloBE Course
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.	Open in an odd number year. Lectures are conducted in English. Computational Biology & Bioinformatics Course face-to-face
EB64021	Biometry II	1	1.0	2, 3	Fall AB	Fri3	Yukihiko Tokunaga (Toquenaga)	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.	Syllabus or recent information from manaba for detail. Lectures are conducted in English. Computational Biology & Bioinformatics Course Online (Synchronous) EG34021 credit holders are ineligible.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EB64111	Theoretical Ecology	1	1.0	2, 3	SprAB	Thu1	Yukihiko Tokunaga (Toquena ga)	This course illustrates theoretical aspects of ecology with examples of laboratory experiments to connect mathematical expressions with ecological phenomena in nature.	Syllabus or recent information from manaba for detail. Lectures are conducted in English. Computational Biology & Bioinformatics Course Online (Synchronous) EG34111 credit holders are ineligible.
EB71031	Cell Biology III	1	1.0	2, 3	FallAB	Thu3	Tomoki Chiba	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. Lectures are 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	Ryusuke Niwa, Satoru Kobayashi, Shunsuke Yaguchi, Yasunori Sasakura, naoki okamoto, Yuya Sanaki, Toshiyuki Harumoto	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 schedule of face-to-face classes. Lectures are conducted in English. face-to-face (partially online) Molecular and Cellular Biology Course Human Biology course GloBE Course
EB72911	Marine Biology I	1	1.0	2, 3	SprAB	Wed3	Hiroaki Nakano, Benjamin Paul Harvey	This course provides an integrated introduction to marine biology, from the historical foundations of the discipline to the diversity of marine organisms and the ecological processes that structure marine ecosystems. Students will learn how physical and chemical ocean environments shape marine life, how organisms adapt to different habitats and lifestyles, and how key ecosystem functions such as primary production, respiration, and biomineralisation support ocean productivity and global biogeochemical cycles. The course concludes with major contemporary human impacts, including climate change, ocean acidification, pollution, overfishing, and biological invasions.	Lectures are conducted in English. Online (partially face-to-face) Molecular and Cellular Biology Course GloBE Course EG22911 credit holders are ineligible.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EB72921	Marine Biology II	1	1.0	2, 3	Fall/AB	Wed3	Shunsuke Yaguchi, Yasunori Sasakura, Hiroaki Nakano, Benjamin Paul Harvey, Osamu Kagawa	Lecture will provide several topics on marine organisms, including fertilization, cilia and flagella, gene-manipulation, 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. Lectures are conducted in English. Online (partially face-to-face) Molecular and Cellular Biology Course EG32921 credit holders are ineligible.
EB74111	Plant Physiology I	1	1.0	2, 3	Spr/AB	Fri1	Kenji Miura, Louis John Irving, Jun Furukawa	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.	Lectures are 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	Fall/AB	Fri1	Takuya Suzuki	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, environmental responses, 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. Molecular and Cellular Biology Course face-to-face
EB74211	Metabolic and Physiological Chemistry I	1	1.0	2, 3	Spr/C	Intensive	Iwane Suzuki	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. Lectures are conducted in English. 7/10-7/12 Molecular and Cellular Biology Course GloBE Course face-to-face EG24211 credit holders are ineligible.
EB82131	Chemical Ecology	1	1.0	2, 3	Fall/AB	Fri4	Tomoyuki Yokoi, Shigeru Matsuyama, Keiko Yamaji, Natsuko Kinoshita, Kazumu Kuramitsu	This lecture introduces chemical aspects of relationships between individual insects, animals, plants and microorganisms of the same (pheromone) or different (allelochemicals) species.	Lectures are conducted in English. Applied Biology course face-to-face EB82131 credit holders are ineligible.

College of Agro-Biological Resource Sciences

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG40012	Agro-Biological Resource Science, Exercises	2	1.0	1, 2	Sum Vac	Intensive	Beiwen Ying	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). Lectures are 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. Lectures are 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. Lectures are conducted in English. face-to-face
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. Lectures are 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. Lectures are 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. Lectures are 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. Lectures are 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. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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. Lectures are 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. Lectures are 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. Lectures are 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. Lectures are conducted in English. face-to-face
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. Lectures are 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. Lectures are 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. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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. Lectures are 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 EG41138 or EG41148. Required a special permission by the Chair of the college of Agro-Biological Resource Sciences. Lectures are conducted in English. face-to-face
EG50011	World Food and Agriculture	1	1.0	1	SprAB	Mon2	Seung Won Kang	This course introduces crop plants, domestic animals and their production in the world, in relation to economic and environmental issues.	Lectures are conducted in English. face-to-face
EG50041	Biochemistry	1	2.0	2, 3	SprAB	Thu4, 5	Keiji Kimura, Miyako Kusano, Norio Takeshita, Hiromi Yanagisawa	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.	Lectures are conducted in English. Online (Asynchronous)
EG50061	Vegetation Ecology	1	1.0	2, 3	FallC	Intensive	Kiyokazu Kawada, Yoshiaki Tsuda, Takashi Kamijo	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.	Lectures are conducted in English. face-to-face
EG50163	Fundamental Chemistry Laboratory	3	1.0	2	FallAB	Fri4-6	Kosumi Yamada, Hideyuki Shigemori, Kazuyoshi Ogawa, Akiko Nakagawa-Izumi, Nakao Nomura, Yingnan Yang, Yoko Nagumo, Shunsuke Masuo, Yusaku Miyamae, Syunichi Urayama	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. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG50193	Fundamental Biology Laboratory	3	1.0	2	Fall/BC	Fri4-6	Satoko Nonaka, Shinya Takahashi, Junichi P. Abe, Yutaka Yawata, Hiroaki Daitoku, Hidehiko Hirakawa, Norio Takeshita, Shigeru Matsuyama	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. face-to-face
EG60012	Current Topics in Plant Biology	2	1.0	2, 3	Fall/C	Mon3, 4	Natsuko Kinoshita	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 an even number year. Lectures are conducted in English. face-to-face
EG60022	Seminar in Biosystems Engineering and Technology	2	3.0	3, 4	Fall/ABC	Mon2, 3	Ahamed Tofael, Yutaka Kitamura, Marcos Antonio das Neves	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. Lectures are conducted in English. distance learning face-to-face
EG60023	International Training of Agriculture III	3	2.0	1 - 3	Annual	by appointment	Nakao Nomura, Chair and others	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。 Identical to EC41133. Lectures are conducted in English. CDP face-to-face
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。 Open in an odd number year. Identical to EC41143. CDP face-to-face
EG60043	Agricultural Internship Abroad V	3	2.0	1 - 3	Annual	by appointment	Kiyokazu Kawada, Chair and others	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。 Open in an even number year. Identical to EC41153. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG60053	Agricultural Internship Abroad VI	3	2.0	1 - 3	Annual	by appointment	Junichi P. Abe, Ning Wang, Chair and others	In our partner universities and companies in ASEAN countries and mainly Taiwan, through lectures, practical trainings, and field surveys, students will learn about the characteristics and regional aspects of agriculture in each of these countries. Additionally, through interactions with local students, teachers of our partner university and businesspeople, they will cultivate a career awareness with an international perspective.	(インターンシップ) 国外。Identical to EC41163. Lectures are conducted in English. face-to-face
EG60063	International Training of Agriculture I	3	2.0	1 - 3	Annual	by appointment	Nakao Nomura, Chair and others	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。生物資源学類生優先 Identical to EC41013. Lectures are conducted in English. CDP face-to-face
EG60071	Food Functionality	1	1.0	3, 4	Fall/C	Tue5, 6	Hiroko Isoda, Farhana Ferdousi, Shinya Takahashi	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 Lectures are conducted in English. face-to-face
EG60101	Soil Science	1	2.0	3, 4	Fall/C	Intensive	Maki Asano	Fundamental aspects 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 Open in an even number year. Lectures are conducted in English. face-to-face
EG60121	Food Process Engineering	1	1.0	3, 4	SprAB	Wed3	Marcos Antonio das Neves, Mito Kokawa	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 Lectures are conducted in English. face-to-face
EG60161	Environmental Colloid Engineering	1	1.0	3, 4	SprC	Tue5, 6	Motoyoshi Kobayashi, Lester Canque Geonzon	Applications of colloid and interface science to environmental issue and its basis are given. Focus will be placed on the flocculation which is important to control soil and water quality. Current topics related to microbiology and ecosystem will be lectured.	Identical to EC33361. Lectures are conducted in English. face-to-face
EG60191	Biomass Conversion	1	2.0	3, 4	SprC	Intensive	Yingnan Yang	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. Lectures are conducted in English. face-to-face
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 an odd number year. Lectures are conducted in English. face-to-face Not open in 2025

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG60252	Seminar in Agricultural Economics and Sociology	2	2.0	3, 4	Annual	by appointment	Hisato Shuto	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. Lectures are conducted in English. face-to-face
EG60272	Seminar in Quantitative Food Economics	2	2.0	2, 3	FallC	Mon3-6	Hisato Shuto	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.	Lectures are conducted in English. face-to-face
EG60361	Introductory Microbiology	1	1.0	2, 3	FallC	Thu3, 4	Andrew S Utada	This course will introduce students to microbiology starting with a historical perspective of their discovery, moving into diversity and classifications of microorganisms. We will discuss bacterial anatomy, growth, metabolism, isolation and culture of environmental organisms and screening. We will explore how microorganisms have been used and are currently used industrially, their role in global element cycles, and bio-remediation. Finally, we will address the central dogma, bacterial genetics and gene regulation, and select topics towards the end of course.	Lectures are conducted in English. face-to-face unless otherwise indicated.
EG60401	Economics of Resource and Environment	1	2.0	3, 4	SprAB	Thu3, 4	Hisato Shuto	Lectures will cover the topics in agricultural economy and resource and environment including forest.	Open in an even number year. Lectures are conducted in English. face-to-face
EG60411	Biomaterial Science	1	1.0	3, 4	FallAB	Tue2	Akiko Nakagawa-Izumi, Eiichi Obataya	Plant-derived biomaterials are overviewed, and then, the physical and chemical properties of wood, the most abundant biomaterial, are introduced.	Lectures are conducted in English. face-to-face
EG60421	Soil and Water Bio-Engineering	1	1.0	3	SprC	Intensive	Tian Yuan, Yasuhisa Adachi	The course will focus on discussing the science, technology and engineering for achieving sustainable soil and water systems. We will also cover several important, emerging topics related to bio-engineering for sustainable soil and water management.	Lectures are conducted in English. face-to-face
EG60491	Elementary Applied Thermodynamics	1	1.0	2, 3	SprAB	Mon4	Andrew S Utada	Thermodynamics is one of the most fundamental subjects with direct implications for biology and the environmental sciences. Through these lectures, we will explore elementary thermodynamics from the perspective of how these ideas can be applied in the life and environmental sciences. Lectures will begin from the concept of equilibrium systems with an example of Brownian motion. Later, we will delve into the first and the second laws of thermodynamics addressing the concept of Gibbs free energy and chemical potential. Many examples will be cited from colloid and interface science. This course will prove useful for those interested in environmental colloid science, biophysics and bioengineering, and applied microbiology.	Lectures are conducted in English. face-to-face unless otherwise indicated.

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG60551	Water Resources Management Engineering	1	1.0	3, 4	SprC	Tue1,2	Atsushi Ishii	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. Lectures are conducted in English. face-to-face interdepartmental course
EG60561	Water Environmental Management Technology	1	1.0	3	SprC	by appointment	Nakao Nomura	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 (GiC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 GiC Project. Lectures are conducted in English. face-to-face
EG60571	Introduction to Industrial Ecology	1	1.0	3	SprAB	Tue2	Helmut Friedrich Yabar Mostacero	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.	Lectures are conducted in English. face-to-face
EG60611	International Agricultural and Forestry Policies I	1	1.0	2, 3	Sum Vac	Intensive	Hisato Shuto	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 an even number year. Identical to EC34281. Lectures are conducted in English. Work Experience faculty face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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 an odd number year. Identical to EC34381. Lectures are conducted in English. Work Experience faculty face-to-face
EG60661	Renewable Energy and Bioresource Recycling Technologies	1	2.0	3	Fall IAB	Fri3, 4	Marcos Antonio das Neves, Zhongfang Lei, Tian Yuan, Yutaka Kitamura	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)。EC33281、EC33041を修得済みの者は履修できない。Identical to EC33651. Lectures are conducted in English. face-to-face
EG60663	Fundamental Environmental Engineering Laboratory	3	1.0	2	SprAB	Fri5, 6	Akiko Nakagawa-Izumi, Motoo Utsumi, Motoyoshi Kobayashi, Zhongfang Lei, Takuya Sugimoto, Tian Yuan, Mito Kokawa, Eiichi Obataya, Lester Canque Geonzon	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)。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	Fall IAB	Wed5, 6	Mito Kokawa, Yutaka Kitamura, Marcos Antonio das Neves, Motoo Utsumi	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)。(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
EG60681	Contemporary Concepts of Inheritance	1	1.0	3, 4	Fall IAB	Thu2	Diana Mihaela Buzas	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, CRISPR-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. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG60691	Systems Biotechnology	1	1.0	3	SprC	Tue3, 4	Beiwen Ying, Andrew S Utada, Norio Takeshita	Learn the principles, techniques and applications for quantitatively understanding the behavior of (micro)organisms. Understand the integration of knowledge across disciplines, including biology, engineering, information science, and mathematical statistics.	Lecture is conducted in both Japanese and English. Identical to EC32201. face-to-face
EG60701	Bioprocess Engineering	1	1.0	3	SprAB	Fri3	Nakao Nomura	This lecture will explain the important points when using processes that utilize biological functions such as cultured cells and enzymes in process development, as well as future directions, using developed processes as examples. Existing processes to be introduced include production processes of pharmaceutical proteins using cultured animal cells, development of hybrid artificial organs, water quality purification of enclosed water bodies, pathogen management in high-density aquaculture, and biomass fuel production processes.	EC32071, EC32111, EG60581, EG6111 credits holders are ineligible. Identical to EC32221. Lectures are conducted in English. G-course face-to-face
EG60706	Laboratory & Exercise in Environmental Colloid Engineering	6	1.0	2 - 4	FallB	Thu4-6	Motoyoshi Kobayashi, Takuya Sugimoto, Lester Canque Geonzon	Students learn the fundamental and applications of colloidal and environmental engineering through experiments and exercise.	It is desirable for participants to take "Environmental Colloid Engineering" beforehand or later. Identical to EC33706. Lectures are conducted in English. face-to-face

College of Geoscience

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG70013	Laboratory Work in Basic Geoscience	3	1.0	1	SprAB	Thu4, 5	Quang Van Doan, Shigehiro Fujino, Umam Rofiqui, Kohei Tanaka, Keisuke Matsui, Akio Yamashita, Kei Ikehata, Atsushi Kyono, Masanori Kurosawa, Teruyuki Maruoka, Atsushi Ikeda	In this experiment, students learn basic methods and techniques for studying the geosciences through practical training in a variety of fields.	英語で授業。一部オンラインで実施する可能性がある。Lectures are conducted in English. face-to-face
EG70021	Introduction to Geoenvironmental Science	1	1.0	1	FallAB	Fri1	Tsuyoshi Hattanji, Hiroyuki Kusaka, Masaaki Kureha, Hiroaki Kato, Takehiro Morimoto, Hiroaki Ueda, Umam Rofiqui	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.	英語で授業。Face-to-face Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG70031	Introduction to Earth Evolution Science	1	1.5	1	Fall IABC	Tue1	Atsushi Kyono, Kohtaro Ujiie, Yuji Yagi, Ryo Okuwaki, Yoshihito Kamata, Toshiaki Tsunogae, Shigehiro Fujino, Teruyuki Maruoka, Kohei Tanaka, Sachiko Agematsu	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.	Lectures are 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.
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。西暦 奇数年度開講。英語 で授業。 Open in an odd number year. Lectures are conducted in English. Not open in 2026. face-to-face G-course
EG90313	Internship Program in Geoscience	3	1.0	2 - 4	Annual	by appointment	Hiroaki Kato, Sachiko Agematsu	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. Students, who attended EG90303, are not permitted. Lectures are conducted in English. Work Experience faculty face-to-face CDP It is mandatory to enroll in Course B of the JEES personal accident insurance for students pursuing education and research.
EG91011	Lecture on Geographical Information Systems	1	1.0	2, 3	Fall IIC	Thu1, 2	Takehiro Morimoto, Akio Yamashita, Jun Tsutsumi	This course introduces fundamentals of Geographical Information Systems and its application to geography.	Open in an even number year. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG91081	Environmental Hydrology	1	1.0	2, 3				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. 西暦奇数年度開講。Open in an even number year. Lectures are conducted in English. Not open in 2026. face-to-face 英語で授業
EG91101	Meteorology and Climatology	1	1.5	2, 3	SprABC	Wed1	Quang Van Doan, Yoichi Kamae	Elementary course about the general circulation of the atmosphere and the energy budget, mechanism of climate 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 an even number year. Lectures are conducted in English. face-to-face
EG91141	Human and Regional Geography	1	1.5	2, 3	FallABC	Thu4	Kenichi Matsui, Keisuke Matsui, Tomoko Kubo	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 ethnic geographies.	Students, who attended EG80011, are not permitted. Lectures are conducted in English. face-to-face (partially online)
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". Open in an odd number year. Lectures are conducted in English. face-to-face (partially online)
EG91171	Basic Analysis of Environmental Dynamics	1	1.5	2, 3	SprABC	Tue5	Bunkei Matsushita, 大輔 津旨, Yuichi Onda, Hiroaki Kato, Junko Takahashi, Yasunori Igarashi	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 an even number year. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG91191	Landslides	1	1.0	2, 3	Fall/AB	Fri1	Thomas Parkner	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. Open in an even number year. Lectures are 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. 7/12, 7/13, 7/19, 7/20. face-to-face Open every 2 years since 2025. Lectures are conducted in English. Not open in 2026. face-to-face
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 2026. Lectures are conducted in English. Not open in 2026. face-to-face
EG91223	Field Work in Geoenvironmental Science III	3	1.5	2, 3	Annual	Intensive	Tomoko Kubo, Takehiro Morimoto	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 2026. This course is offered every 3 years. Permission by teachers. Open every 3 years since 2026. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG91233	Field Work in Geoenvironmental Science IV	3	1.5	2, 3	Annual	Intensive	Thomas Parkner		Offered in 2026. This course is offered every 3 years. Prerequisite: EG91161 Process Geomorphology and EG91191 Landslides. Priority for degree students of the School of Life and Environmental Sciences. Others by permission of the instructor. Limited to several students. Open every 2 years since 2026. Lectures are conducted in English. face-to-face
EG91243	Field Work in Geoenvironmental Science V	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 2027. 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 2 years since 2024. Lectures are conducted in English. face-to-face
EG91253	Field Work in Geoenvironmental Science VI	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 2027. This course is offered every 3 years. Permission by teachers. Open every 2 years since 2024. Lectures are conducted in English. face-to-face
EG92011	Mineralogy and Petrology	1	1.0	2, 3	Fall IAB	Wed3	Toshiaki Tsunogae, Masanori Kurosawa	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 an even number year. Lectures are 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 an odd number year. Lectures are conducted in English. face-to-face
EG92031	Stratigraphy and Paleontology	1	1.0	2, 3	Fall IAB	Tue2	Kohei Tanaka, Yoshihito Kamata, Shigehiro Fujino	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 an even number year. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
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 an odd number year. Lectures are conducted in English. face-to-face
EG92093	Field Work in Earth Evolution Science E	3	1.5	2, 3	Annual	Intensive	Sachiko Agematsu, Kohei Tanaka	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 3 years since 2026. Lectures are conducted in English. face-to-face Including field survey
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 3 years since 2023. Lectures are conducted in English. face-to-face Including field survey
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 3 years since 2023. Lectures are conducted in English. face-to-face
EG90131	Topics on Geoenvironmental Science A	1	1.0	2 - 4	Annual	Intensive		This course introduces knowledge and recent developments on specific topic(s) in Geoenvironmental Science.	Offered in 2026. Open every 3 years since 2026. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG90141	Topics on Geoenvironmental Science B	1	1.0	2 - 4				This course introduces knowledge and recent developments on specific topic(s) in Geoenvironmental Science.	Offered in 2028. Open every 3 years since 2024. Lectures are conducted in English. face-to-face
EG90151	Topics on Geoscience A	1	1.0	3, 4	SprB	Intensive	Thomas Parkner	Students get in contact with the scientific community by attending the Japan Geoscience Union Meeting 2026 (5/24-29).	For Geoscience English program students only. This course is held hybrid (on-site and online). Lecture is conducted in English. Lectures are conducted in English. face-to-face (partially online)
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 3 years since 2023. Lectures are conducted in English. face-to-face
EG90181	Topics on Geoscience D	1	1.0	2 - 4	Annual	Intensive	Masaaki Kureha, Jun Tsutsumi, Akio Yamashita	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. 2022年度より3年おきに開講。英語で授業。Open every 3 years since 2026. Lectures are conducted in English. face-to-face
EG90191	Topics on Geoscience E	1	1.0	2 - 4				This course introduces knowledge and recent developments on specific topic(s) in Geoscience.	Scheduled to be offered in 2028. Priority for Geoscience English program students. Students other than English program by permission of instructor. Up to 20 students. Open every 3 years since 2024. Lectures are conducted in English. face-to-face

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG90303	Internship Program in Geoscience	3	2.0	2 - 4	Annual	by appointment	Hiroaki Kato, Sachiko Agematsu	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. Lectures are conducted in English. Face-to-face CDP
EG92053	Field Work in Earth Evolution Science A	3	2.0	2, 3	Fall, C, Spr, Vac	Intensive	Yoshihito Kamata	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 an even number year. Lectures are conducted in English. face-to-face
EG71002	Seminar on Geoscience A	2	1.5	3	SprC	by appointment	Thomas Parkner	This class provides an overview on all laboratories of the College of Geoscience. Topics on all geoscience disciplines 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. Lectures are conducted in English. face-to-face 英語で授業
EG71012	Seminar on Geoscience B	2	1.5	3	Fall, ABC	by appointment	Thomas Parkner	This intensive course is designed to expose undergraduate students in geoscience to two laboratory settings in order to help them choose one laboratory for their graduation research project.	For Geoscience English program students who started their Seminar on Geoscience A in spring. Lectures are conducted in English. face-to-face 英語で授業
EG71022	Seminar on Geoscience A	2	1.5	3	Fall, C	by appointment	Thomas Parkner	This class provides an overview on all laboratories of the College of Geoscience. Topics on all geoscience disciplines 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. Lectures are conducted in English. face-to-face 英語で授業
EG71032	Seminar on Geoscience B	2	1.5	3	Spr, ABC	by appointment	Thomas Parkner	This intensive course is designed to expose undergraduate students in geoscience to two laboratory settings in order to help them choose one laboratory for their graduation research project.	For Geoscience English program students who started their Seminar on Geoscience A in fall. Lectures are conducted in English. face-to-face 英語で授業
EG71102	Research Seminar A	2	1.5	4	Spr, ABC	by appointment	Thomas Parkner, Dean and others	This seminar is the first semester of a two-semester series focusing on developing research skills in undergraduate geoscience students. Students will work on presenting a research proposal and delivering a midterm presentation to showcase their proposed research project. A key component of the course is peer learning, where students will engage in collaborative discussions and provide feedback to one another.	For Geoscience English program students who start their Research Seminar in spring. Lectures are conducted in English. face-to-face 英語で授業

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG71112	Research Seminar B	2	1.5	4	FallABC	by appointment	Thomas Parkner, Dean and others	This seminar is the second semester of a two-semester series focusing on developing research skills in undergraduate geoscience students. Students will work on presenting their final laboratory presentation and a test presentation for the graduation presentation to showcase their proposed research project. A key component of the course is peer learning, where students will engage in collaborative discussions and provide feedback to one another.	For Geoscience English program students. Prerequisite: Research Seminar A. Lectures are conducted in English. face-to-face 英語で授業
EG71122	Research Seminar A	2	1.5	4	FallABC	by appointment	Thomas Parkner, Dean and others	This seminar is the first semester of a two-semester series focusing on developing research skills in undergraduate geoscience students. Students will work on presenting a research proposal and delivering a midterm presentation to showcase their proposed research project. A key component of the course is peer learning, where students will engage in collaborative discussions and provide feedback to one another.	For Geoscience English program students who start their Research Seminar in fall. Lectures are conducted in English. face-to-face 英語で授業
EG71152	Research Seminar B	2	1.5	4	SprAB	by appointment	Thomas Parkner, Dean and others	This seminar is the second semester of a two-semester series focusing on developing research skills in undergraduate geoscience students. Students will work on presenting their final laboratory presentation and a test presentation for the graduation presentation to showcase their proposed research project. A key component of the course is peer learning, where students will engage in collaborative discussions and provide feedback to one another.	For Geoscience English program students. Prerequisite: Research Seminar A. Lectures are conducted in English. face-to-face 英語で授業
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. Lectures are conducted in English. face-to-face 英語で授業
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. Lectures are conducted in English. face-to-face 英語で授業
EG79068	Graduation Research B	8	3.0	4	SprAB	by appointment	Thomas Parkner, Dean and others	This second semester course is a continuation of the graduation research program, focusing on the implementation, data collection, analysis, and interpretation phases of the student's research project. Students will work closely with their research advisor to conduct their research, troubleshoot challenges, and finalize their research project. The course aims to provide students with hands-on experience in geoscience research and prepare them for successful completion of their graduation project.	Prerequisite: Graduation Research A. Lectures are conducted in English. face-to-face 英語で授業

Course Number	Course Name	授業方法	Credits	Standard Academic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG79118	Graduation Research A	8	6.0	4	SprABC	by appointment	Thomas Parkner, Dean and others	This course is the first part of a two-semester intensive program designed to guide undergraduate students in geoscience through the process of developing and proposing their graduation research project. Students will engage in literature reviews, preliminary data collection, methodological planning, and proposal writing under the guidance of research advisors. The course aims to equip students with the necessary skills and knowledge to establish a solid foundation for their graduation research in geoscience.	For Geoscience English program students who start their graduation research in spring. Lectures are conducted in English. face-to-face 英語で授業
EG79128	Graduation Research B	8	6.0	4	FallABC	by appointment	Thomas Parkner, Dean and others	This second semester course is a continuation of the geoscience graduation research program, focusing on the implementation, data collection, analysis, and interpretation phases of the student's research project. Students will work closely with research advisors to conduct their research and troubleshoot challenges. The course aims to provide students with hands-on experience in geoscience research and prepare them for successful completion of their graduation project.	For Geoscience English program students. Prerequisite: Graduation Research A. Lectures are conducted in English. face-to-face 英語で授業
EG79138	Graduation Research A	8	6.0	4	FallABC	by appointment	Thomas Parkner, Dean and others	This course is the first part of a two-semester intensive program designed to guide undergraduate students in geoscience through the process of developing and proposing their graduation research project. Students will engage in literature reviews, preliminary data collection, methodological planning, and proposal writing under the guidance of research advisors. The course aims to equip students with the necessary skills and knowledge to establish a solid foundation for their graduation research in geoscience.	For Geoscience English program students who start their graduation research in fall. Lectures are conducted in English. face-to-face 英語で授業
EG79168	Graduation Research B	8	6.0	4	SprAB	by appointment	Thomas Parkner, Dean and others	This second semester course is a continuation of the geoscience graduation research program, focusing on the implementation, data collection, analysis, and interpretation phases of the student's research project. Students will work closely with research advisors to conduct their research and troubleshoot challenges. The course aims to provide students with hands-on experience in geoscience research and prepare them for successful completion of their graduation project.	For Geoscience English program students. Prerequisite: Graduation Research A. Lectures are conducted in English. face-to-face 英語で授業
EG79178	Paper Preparation	8	7.0	4	SprABC	by appointment	Thomas Parkner, Dean and others	This course focuses on the final stages of completing an undergraduate thesis in geoscience guided by the academic advisors. Students will learn essential skills in organizing, structuring, and composing their research findings into a coherent and comprehensive thesis document. Topics covered include thesis formatting, citation styles, editing, revising, and preparing for the thesis presentation at the field-wide graduation presentation meeting.	For Geoscience English program students. Take with Graduation Research B. Lectures are conducted in English. face-to-face 英語で授業
EG79188	Paper Preparation	8	7.0	4	FallABC	by appointment	Thomas Parkner, Dean and others	This course focuses on the final stages of completing an undergraduate thesis in geoscience guided by the academic advisors. Students will learn essential skills in organizing, structuring, and composing their research findings into a coherent and comprehensive thesis document. Topics covered include thesis formatting, citation styles, editing, revising, and preparing for the thesis presentation at the field-wide graduation presentation meeting.	For Geoscience English program students. Take with Graduation Research B. Lectures are conducted in English. face-to-face 英語で授業

Foundation Subjects for Major (Required)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ20004	Linear Algebra I	4	3.0	1	FallABC	Wed4, 5	Xiao-Min Tong	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"	Lectures are 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	Sonia Sharmin	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.	Lectures are 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	Toshihiro Kameda	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.	Lectures are conducted in English. face-to-face, Synchronous and Asynchronous, Take-home exam
FJ20134	Introduction to Single-Variable Calculus II	4	2.0	1	FallBC	Tue1, 2	Junhao Wang	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.	Lectures are conducted in English. face-to-face interdepartmental course face-to-face, Synchronous and Asynchronous, Take-home exam
FJ20144	Advanced Calculus	4	4.0	1	SprA SprABC	Tue5, 6 Thu4, 5	Nobuyuki Sano	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.	Lectures are conducted in English. face-to-face face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ20201	Probability and Statistics	1	2.0	1	Fall Fall	Thu2 Thu1,2	Monirul Muhammad Islam	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.	Lectures are conducted in English. face-to-face interdepartmental course face-to-face, Online (Asynchronous) and Online (Synchronous)
FJ22004	Electromagnetism I	4	3.0	2	Fall ABC	Wed2,3	Shoji Yoshida	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.	Lectures are 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	Spr ABC	Tue2 Wed1	Hiroaki Suzuki	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.	Lectures are conducted in English. face-to-face Only for IDE students
FJ25101	Electrical Circuit	1	2.0	2	Fall IAB	Tue5,6	Triet Van Nguyen	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 Lectures are conducted in English. face-to-face
FJ26004	Mechanics I	4	2.0	1	Fall IBC	Mon5,6	Mayuko Nishio	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.	Lectures are conducted in English. face-to-face
FJ26014	Mechanics II	4	2.0	1	Spr AB	Fri5,6	Koji Dairaku	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.	Lectures are conducted in English. face-to-face
FJ26104	Thermodynamics I	4	2.0	2	Fall IAB	Tue3,4	Biao Shen	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 Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ26114	Thermodynamics II	4	1.0	2	SprAB	Fri4	Akiko Kaneko	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 Lectures are conducted in English. face-to-face
FJ27004	Programming I	4	2.0	1	SprAB	Fri1,2	Takehito Utsuro, Kiyoshi Hoshino, Junichi Hoshino, Taku Hachisu	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 Lectures are conducted in English. Online (Asynchronous) Only for IDE students
FJ27014	Programming II	4	1.0	1	SprC	Fri1,2	Itaru Kitahara, Taku Hachisu	[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 Lectures are conducted in English. Online (Asynchronous) Only for IDE students
FJ27024	Programming III	4	2.0	2	FallAB	Fri1,2	Yuki Hashimoto, Modar Hassan	Introduction to algorithm, data structure and computational complexity; Writing C program: Programming techniques	Lectures are conducted in English. Online (Asynchronous) Only for IDE students face-to-face and Online (Asynchronous)
FJ27034	Programming IV	4	1.0	2	FallC	Thu1,2	Yoshinari Kameda	After Programming I - III, Learn C programming skill by coding basic computer graphics programs.	Lectures are conducted in English. face-to-face Only for IDE students Details will be announced on manaba.
FJ28003	Fundamental Labs I	3	2.0	2	FallABC	Mon3-5	Tomoyuki Yamaguchi, Yasushi Nakauchi, Hiroshi Yabuno, Junichi Hoshino, Takeshi Shibuya, Tsuyoshi Takatani, Yuki Hashimoto, Akira Uehara	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 themes = 12 weeks). The 6 themes 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.	face-to-face Only for IDE students Lecture is conducted in English and by face-to-face. Only for IDE students.

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ28013	Fundamental Labs II	3	2.0	2	SprABC	Mon3-5	Yuzou Ohno, Tetsuya Makimura, Takanori Isobe, Haruhiro Oigawa, Daiichiro Sekiba, Hiroshi Yamagishi	Fundamental labs for the basics of Engineering Sciences Topics will include logic circuits, electronic circuits, electric conduction, radiation measurement, and light.	Lectures are conducted in English. face-to-face Only for IDE students

Major Subjects (Required)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ10001	Complex Analysis	1	3.0	2	FallABC	Tue1,2	Yuanzhao Yao	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.	Lectures are conducted in English. face-to-face
FJ10101	Applied Mathematics	1	3.0	2	SprABC	Tue3,4	Monirul Muhammad Islam	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, Fourier and Laplace transforms.	Lectures are conducted in English. face-to-face
FJ11001	Engineering Ethics	1	1.0	4	FallAB	Wed1	Hideki Kakeya	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.	Lectures are conducted in English. face-to-face
FJ11101	Introduction to Interdisciplinary Engineering I	1	1.0	1	FallAB	Tue5	Biao Shen, Takashi Matsushima, Kyosuke Yamamoto, Taro Tezuka, Akihiro Matsuda, Hisashi Date, Toshihiro Kameda, Akiko Kaneko, Satoshi Takewaka, Jun Izawa	This course discusses issues relevant to Engineering Systems and aims to help students grasp general concepts involved in this field of study.	Lectures are conducted in English. face-to-face (partially online)
FJ11111	Introduction to Interdisciplinary Engineering II	1	1.0	1	SprAB	Tue1	Kentaro Shiraki	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 Lectures are conducted in English. face-to-face interdepartmental course
FJ12001	Modern Physics	1	3.0	2	SprABC	Thu1,2	Selvakumar Sellaiyan	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 Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ15001	System Modeling	1	2.0	2	SprAB	Fri5,6	Triet Van Nguyen	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 transducers. 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 Lectures are conducted in English. face-to-face
FJ15101	Electronic Circuits	1	2.0	2	SprAB	Wed3,4	Yuka Maeda, Modar Hassan	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 Lectures are conducted in English. face-to-face
FJ18003	Advanced Labs I	3	2.0	3	FallABC	Mon3-5	Kiyoto Matsuishi, Miwako Takahashi, Takeaki Sakurai, Takashi Suemasu, Ryu Hasunuma, Hiromasa Goto, Monirul Muhammad Islam	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 capacitors and, iv) Optoelectronics, and v) Polymerization of styrene]. Through this course, the techniques necessary for research in Engineering Sciences will be given.	英語で授業 Lectures are conducted in English. face-to-face Only for IDE students
FJ18013	Advanced Labs II	3	2.0	3	SprABC	Tue3-5	Hiroaki Yano, Naoki Shirakawa, Hajime Nobuhara, Akiko Kaneko, Tetsuya Kanagawa, Mayuko Nishio, Naoki Morita, Shin Kawai	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. System optimization (4 wk.), 3. Structural vibration (2 wk.), and 4. Boiling heat transfer (2 wk.).	英語で授業 Lectures are conducted in English. face-to-face Only for IDE students
FJ19003	Interdisciplinary Engineering PBL I	3	6.0	3	FallABC	by appointment	Xiao-Min Tong, Biao Shen	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.	Lectures are conducted in English. face-to-face (partially online) Only for IDE students (PBL style will be advised by each academic advisor)
FJ19013	Interdisciplinary Engineering PBL II	3	6.0	3	SprABC	by appointment	Xiao-Min Tong, Biao Shen	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.	Lectures are conducted in English. face-to-face (partially online) Only for IDE students
FJ19023	Interdisciplinary Engineering PBL III	3	6.0	4	FallABC	by appointment	Xiao-Min Tong, Biao Shen	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.	Lectures are conducted in English. face-to-face (partially online) Only for IDE students

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ19033	Interdisciplinary Engineering PBL IV	3	6.0	4	SprABC	by appoint- ment	Xiao-Min Tong, Biao Shen, Toshihiro Kameda	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. Lectures are conducted in English. face-to-face (partially online) Only for IDE students
FJ19043	Interdisciplinary Engineering PBL IV	3	6.0	4	FallABC	by appoint- ment	Xiao-Min Tong, Biao Shen, Toshihiro Kameda	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.	Lectures are conducted in English. face-to-face (partially online) Only for IDE students

Major Subjects (Core Electives)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
EG02211	Chemistry I	1	1.0	1	Fall A	Tue/Fri 6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face
EG02221	Chemistry II	1	1.0	1	Fall B	Tue/Fri 6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face
EG02231	Chemistry III	1	1.0	1	Fall C	Tue5 Thu6	Seung Won Kang	Introduction to general chemistry for life and environmental sciences.	Lectures are conducted in English. face-to-face
FJ12101	Statistical Physics I	1	1.0	3	Fall AB	Wed5	Nobuyuki Sano	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 Lectures are conducted in English. face-to-face
FJ12111	Statistical Physics II	1	1.0	3	Fall C	Tue/Thu 4	Nobuyuki Sano	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 Lectures are conducted in English. face-to-face
FJ12121	Statistical Physics III	1	1.0	3	SprAB	Mon4	Nobuyuki Sano	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 Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ12231	Quantum Mechanics I	1	1.0	3	FallA	Fri4,5	Daiichiro Sekiba	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. Lectures are conducted in English. face-to-face
FJ12241	Quantum Mechanics II	1	1.0	3	FallBC	Fri4	Daiichiro Sekiba	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. Lectures are conducted in English. face-to-face
FJ12251	Quantum Mechanics III	1	1.0	3	SprAB	Thu5	Daiichiro Sekiba	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. Lectures are conducted in English. face-to-face
FJ12301	Advanced Electromagnetism I	1	1.0	3	FallA	Fri1,2	Jun Fujioka	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.	Lectures are conducted in English. face-to-face. Identical to OAJG041
FJ12311	Advanced Electromagnetism II	1	1.0	3	FallB	Thu4,5	Daiming Tang	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.	Lectures are conducted in English. face-to-face. Identical to OAJG042
FJ12321	Advanced Electromagnetism III	1	1.0	3	FallC	Thu1,2	Daiming Tang	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.	Lectures are conducted in English. face-to-face. Identical to OAJG043
FJ12401	Solid State Physics I	1	1.0	4	FallAB	Mon4	Seiji Kojima	We learn fundamental knowledge of solid state physics, i.e. Crystal, structure, diffraction, reciprocal, lattice, Brillouin zone, ionic crystals, elastic constants.	Lectures are conducted in English. face-to-face. Identical to OAJG061
FJ12411	Solid State Physics II	1	1.0	4	FallC	Mon/Fri4	Seiji Kojima	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.	Lectures are conducted in English. face-to-face. Identical to OAJG062
FJ12421	Solid State Physics III	1	1.0	4	SprBC	Mon4	Seiji Kojima	We learn fundamental knowledge of solid state physics, i.e. band structure, semiconductor crystals, Fermi surfaces, metals.	Not open in 2022. Lectures are conducted in English. face-to-face. Identical to OAJG063

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
FJ15011	Control Systems I	1	2.0	3	FallAB	Wed3,4	Hisashi Date	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.	Lectures are conducted in English. face-to-face (partially online)
FJ15021	Control Systems II	1	2.0	3	SprAB	Wed3,4	Hisashi Date, Hiromi Mochiyama	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.	Lectures are 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	Shigeru Yokota	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 viscous flows.	Lectures are 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	Takashi Matsushima	The course describes the basics of continuum mechanics for solid including the analyses of stress and strain, linear elasticity as the simplest constitutive model, and the yield criterion.	Lectures are conducted in English. face-to-face interdepartmental course
FJ16031	Energy Engineering	1	1.0	3	SprC	Tue1,2	Hirohisa Aki	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.	Lectures are conducted in English.

Major Subjects (Required Courses)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
HE40011	Medical Microbiology	1	2.0	3, 4	FallAB	by appoint- ment	Kazuya Morikawa	This course offers a series of lectures and discussions regarding the molecular mechanisms underlying in bacterial pathogens. Students will learn hot topics and techniques in molecular bacteriology fields.	This course is for foreign students in School of Medical Sciences. Lectures are 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	Intensi- ve	Masanori Sakaguchi, Satoru Takahashi, Michio Hamada, Kenji Irie, Norihiko Ohbayashi, Atsushi Kawaguchi, Takashi Matsuzaka, Masatoshi Miyakoshi	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. Lectures are conducted in English. Details will be announced. face-to-face (partially online)
HE40071	English Communication for Medical Sciences II	1	3.0	4	SprAB SprC	Mon/Fri 1 Mon/Thu 1	Chigusa Oda, Yukihide Watanabe, Yukari Okita, Masafumi Muratani, Cat Khanh Vuong, Takeji Sakae, Hiroaki Kumada, Eiji Mizutani, Tsuyoshi Saito, Masanori Sakaguchi	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. Lectures are conducted in English. face-to-face (partially online)
HE40081	Topics in Medical Sciences I	1	1.0	3	FallAB	Wed3	Kiong Ho	This course helps students to understand the basics of genes and genomes and enable them to develop critical thinking in medical science.	Lectures are conducted in English. Lectures are conducted in English. face-to-face (partially online)
HE40091	Topics in Medical Sciences II	1	1.0	4	SprBC	Tue4	Kiong Ho	This course helps students to understand the recent developments in medical science research by active learning and discussion.	Only International Medical Science Course students. Lectures are conducted in English. face-to-face
HE40102	Seminar on Medical Sciences	2	1.0	3	FallBC	by request	Yo Oishi	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. Lectures are conducted in English. face-to-face
HE40112	Research Seminar	2	2.0	3	FallBC	by request	Yo Oishi	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. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
HE40113	Graduation Research	3	8.0	4	SprABC, FallAB	by request	Yo Oishi	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. Lectures are conducted in English. face-to-face
HE40131	Clinical Hematology	1	2.0	3	FallABC	by request	Naoshi Obara	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. Lectures are conducted in English. Online (Asynchronous)
HE40141	Coagulation and Fibrinolysis	1	1.0	3	FallABC	by request	Naoshi Obara	血液の凝固・線溶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. Lectures are conducted in English. Online (Asynchronous)
HE40151	Clinical Pathophysiology	1	2.0	3	FallAB	by appoint- ment		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. Lectures are conducted in English.
HE40161	Topics in Vascular Biology	1	1.0	3, 4	FallAB	Intensi- ve	Hiromi Yanagisawa, Kenichi Kimura, Ryutaro Ishii, Raja Erna, 恵一 浅野	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.	原則英語、場合によっては日本語でも授業。Lectures are conducted in English. Details will be announced. face-to-face
HE40201	Immunology	1	2.0	3, 4	Annual	by appoint- ment	Chigusa Oda, Kazuko Shibuya, Yu-Hsien Lin	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. Lectures are conducted in English.
HE40231	Clinical pharmacology	1	1.0	3	SprC	by request	Michael Lazarus, Yo Oishi	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. Lectures are conducted in English. face-to-face
HE40263	Seminar on Medical Sciences	3	1.0	3	Annual	by request	Yo Oishi	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. Lectures are conducted in English. face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
HE40272	Research Seminar	2	2.0	3	Fall/BC	by request	Yo Oishi	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. Lectures are conducted in English. face-to-face
HE40273	Graduation Research	3	8.0	4	Annual	by request	Yo Oishi	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 Lectures are conducted in English. face-to-face
HE41170	International Forum on Medical Biology Research	0	1.0	2 - 4	Annual	by request	Kazuya Morikawa	Students will participate in international meeting in the field related to their own research, or participate in research activity in oversea laboratory.	Lectures are conducted in English. face-to-face
HE41175	Training Abroad on Medical Biology	5	1.0	3, 4	Annual	by request	Yuji Funakoshi	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lectures are conducted in English. Details will be announced. Online (Synchronous)
HE41181	Workshop for Medical Science Students	1	1.0	3	Fall/C	Wed1,2	Kiong Ho, Thomas David Mayers	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. Lectures are conducted in English. face-to-face (partially online)
HE41190	International Forum on Medical Biology Research II	0	1.0	2 - 4	Annual	by request	Kazuya Morikawa	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. Lectures are conducted in English. face-to-face
HE41200	International Forum on Medical Biology Research III	0	1.0	2 - 4	Annual	by request	Kazuya Morikawa	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. Lectures are conducted in English. face-to-face
HE41210	International Forum on Medical Biology Research IV	0	1.0	2 - 4	Annual	by request	Kazuya Morikawa	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. Lectures are conducted in English. face-to-face
HE41215	Training Abroad on Medical Biology II	5	1.0	3, 4	Annual	by request	Yuji Funakoshi	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lectures are conducted in English. Online (Synchronous)
HE41220	International Forum on Medical Biology Research V	0	1.0	2 - 4	Annual	by request	Kazuya Morikawa	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. Lectures are conducted in English. face-to-face
HE41225	Training Abroad on Medical Biology III	5	1.0	3, 4	Annual	by request	Yuji Funakoshi	Students study at foreign university or enroll in an approved international program regarding medical related field.	Only Medical Sciences students. Lectures are conducted in English. Online (Synchronous)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
HE41241	Genetic Testing and Chromosome Analysis	1	1.0	3	SprBC	by request	Emiko Noguchi, Hiroko Miyadera, 綾川崎	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. Lectures are conducted in English. Details will be announced. face-to-face

Foundation Subjects for Major (Required)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
VB10001	General Introduction to Global Issues	1	3.0	1	Fall A Fall B	Mon/Fri 1, 2 Mon1, 2	Takahiro Morio, Hajime Akiyama, Rajeev Kumar Singh, Pankaj Kumar, Yanbo Pang	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).	Lectures are conducted in English. 主専攻必修科目。 face-to-face interdepartmental course
VB10011	Methodology for Global Issues	1	3.0	1	Fall AB	Wed2-4	Ryosuke Ohniwa, Bruno Daniel Philippe Jactat, Hajime Akiyama, 優希 守谷	Students will study 1) academic writing and presentation, 2) philosophy of methodology, and 3) the basis of research and policy recommendation, which form the foundation for identifying and addressing global challenges. Through this, they will acquire fundamental literacy and skills for observing, understanding, and expressing objects and concepts.	Lectures are conducted in English. 主専攻必修科目。 face-to-face interdepartmental course
VB20001	Literacy in Global Issues (Environment)	1	3.0	1	Fall AB	Tue1, 2 Intensive	Takahiro Morio, Maki Tsujimura, 賢吉 川, Naomi Shimpo, あかね 別所, Tadashi Matsumoto	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 the intensive classes, students will learn examples to deepen insights on actual global issues through lectures by experts.	Lectures are conducted in English. 主専攻必修科目。 face-to-face
VB30001	Literacy in Global Issues (Human)	1	3.0	1	Fall C	Tue3, 4 Tue5, 6 Thu1, 2	Hajime Akiyama, MOE SASAKI	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.	Lectures are conducted in English. 主専攻必修科目。 face-to-face

Major Subjects (Required)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
VB10012	Seminars on Global Issues III	2	6.0	4	Fall ABC	by appoint- ment	Takahiro Morio	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) . Lectures are conducted in English. 主専攻必修科目。 face-to-face (partially online)
VB10013	Practical Training on Global Issues III	3	6.0	4	Fall ABC	by appoint- ment	Takahiro Morio	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) . Lectures are conducted in English. 主専攻必修科目。 face-to-face (partially online)
VB10018	Graduation Research I	8	3.0	4	Fall ABC	by appoint- ment	Takahiro Morio, Hajime Akiyama, Bruno Daniel Philippe Jactat	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.	Lectures are conducted in English. 主専攻必修科目。 face-to-face (partially online)

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
VB10028	Graduation Research II	8	3.0	4	SprABC	by appointment	Takahiro Morio, Hajime Akiyama, Bruno Daniel Philippe Jactat	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.	Lectures are conducted in English. 主専攻必修科目。face-to-face (partially online)
VB10038	Graduation Research I	8	3.0	4	SprABC	by appointment	Takahiro Morio, Bruno Daniel Philippe Jactat	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.	Lectures are conducted in English. 主専攻必修科目。face-to-face (partially online) Consult with your supervisor before enrolment.
VB10048	Graduation Research II	8	3.0	4	FallABC	by appointment	Takahiro Morio	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.	For those who plan to graduate in the Fall semester. Lectures are conducted in English. 主専攻必修科目。face-to-face (partially online) Consult with your supervisor before enrolment.
VB20012	Seminars on Global Issues A-I	2	6.0	2	SprABC	Wed5, 6 Fri5, 6 by appointment	Takahiro Morio	This series of seminars aims at providing advanced knowledge and skills to understand and solve global issues in the field of "Sustainability," "Disaster" and "Environment" through lectures and discussions. The students will learn various topics in the three themes above. At the end of the course, students will investigate their own topics which they set up and produce a report paper.	This course is for BPGI students, or students who have earned credits of VB10001 and VB10011. Lectures are conducted in English. 主専攻必修科目。face-to-face
VB20013	Practical Training on Global Issues A-I	3	3.0	2	SprABC	Thu5, 6 by appointment	Shuntaro Yada, Takahiro Morio, Ryosuke Ohniwa	This practical training provides foundational experience in research methodology through systematically organized PBL (Problem-Based Learning) focused on Global Issues, especially on the topics of Environmental Issues and Risk & Security Issues. Students engage in intensive exercises covering both theme areas. BPGI faculty guide students through comprehensive methodological training using prepared material ranging from data to fields. The course primarily focuses on learning and practicing essential research methodologies through guided group work. Students conduct methodology surveys using introductory resources and apply learned techniques through hands-on exercises, building core methodological competencies for Global Issues research.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues A-I (VB20012). Lectures are conducted in English. 主専攻必修科目。face-to-face
VB20022	Seminars on Global Issues A-II	2	6.0	3	SprABC	by appointment	Shuntaro Yada	This seminar provides intensive theoretical foundation through laboratory seminars focused on Global Issues, especially on the topics of Environmental Issues and Risk & Security Issues. Students engage in laboratory seminars: under the direct guidance of faculty members, students join research laboratories to conduct comprehensive literature reviews, participate in research discussions, and engage in theoretical analysis related to their chosen seminar themes. The course emphasizes deep understanding of theoretical frameworks and research methodologies through real laboratory environments, enabling students to develop solid academic foundations from literature review to critical analysis.	Students must complete the Seminars on Global Issues A-I (VB20012) and the Practical Training on Global Issues A-I (VB20013). Students must take this course at the same time as or after having accomplished the Practical Training on Global Issues A-II (VB20023). 英語で授業。主専攻必修科目。対面 Lectures are conducted in English. 主専攻必修科目。face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
VB20023	Practical Training on Global Issues A-II	3	3.0	3	SprABC	by appoint- ment	Shuntaro Yada	This practical training provides hands-on research experience through laboratory internships focused on Global Issues, especially on the topics of Environmental Issues and Risk & Security Issues. Students engage in laboratory internships: under the direct guidance of faculty members, students join research laboratories to conduct experiments, investigations, and field work related to their chosen PBL themes. The course emphasizes practical application of research skills through real laboratory environments, enabling students to experience authentic research processes from problem identification to solution development. Students present their findings and research outcomes, demonstrating their ability to contribute meaningfully to ongoing research projects of the target topics.	Students who have completed the Seminars on Global Issues A-I (VB20012) and the Practical Training on Global Issues A-I (VB20013). Students must take this course at the same time as or after having accomplished the Seminars on Global Issues A-II (VB20022). 英語で授業。主専攻必修科目。対面 Lectures are conducted in English. 主専攻必修科目。 face-to-face
VB30012	Seminars on Global Issues B-I	2	6.0	2	FallABC	Wed4, 5 Fri4, 5	Hajime Akiyama, Ryosuke Ohniwa, Shuntaro Yada, Ganchimeg Togoobaatar, 優希守谷, Kuanysh Tastanbekova, 知宏 秋山, Yohei Seki	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, as well as molecular level understanding of the health. 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. Lectures are conducted in English. 主専攻必修科目。 face-to-face
VB30013	Practical Training on Global Issues B-I	3	3.0	2	FallABC	Tue3, 4 by appoint- ment	Shuntaro Yada	This practical training provides foundational experience in research methodology through systematically organized classroom-based PBL (Problem-Based Learning) focused on global issues, especially on the topics of Social Issues and Health & Wellness Issues. Students engage in intensive classroom exercises covering both theme areas: BPGI faculty guide students through comprehensive methodology training using prepared datasets and structured analytical tasks. The course primarily focuses on learning and practicing essential research methodologies through guided group work and desk-based analysis. Students conduct methodology surveys using introductory resources and apply learned techniques through hands-on classroom exercises, building core methodological competencies for global issues research.	Students must follow this course at the same time as or after having accomplished the Seminars on Global Issues B-I (VB30012). Lectures are conducted in English. 主専攻必修科目。 face-to-face

Course Number	Course Name	Instru- ctional Type	Credit s	Stand- ard Academ- ic Year	Course Offering Term	Weekday and Period	Instructor	Course Overview	Remarks
VB30022	Seminars on Global Issues B-II	2	6.0	3	Fall/ABC	by appoint- ment	Shuntaro Yada	This seminar provides intensive theoretical foundation through laboratory seminars focused on Global Issues, especially on the topics of Social Issues and Health & Wellness Issues. Students engage in laboratory seminars: under the direct guidance of faculty members, students join research laboratories to conduct comprehensive literature reviews, participate in research discussions, and engage in theoretical analysis related to their chosen seminar themes. The course emphasizes deep understanding of theoretical frameworks and research methodologies through real laboratory environments, enabling students to develop solid academic foundations from literature review to critical analysis.	Students must complete the Seminars on Global Issues B-I (VB30012) and the Practical Training on Global Issues B-I (VB30013). Students must take this course at the same time as or after having accomplished the Practical Training on Global Issues B-II (VB30023). 英語で授業。主専攻必修科目。対面 Lectures are conducted in English. 主専攻必修科目。 face-to-face
VB30023	Practical Training on Global Issues B-II	3	3.0	3	Fall/ABC	by appoint- ment	Shuntaro Yada	This practical training provides hands-on research experience through laboratory internships focused on Global Issues, especially on the topics of Social Issues and Health & Wellness Issues. Students engage in laboratory internships: under the direct guidance of faculty members, students join research laboratories to conduct experiments, investigations, and field work related to their chosen PBL themes. The course emphasizes practical application of research skills through real laboratory environments, enabling students to experience authentic research processes from problem identification to solution development. Students present their findings and research outcomes, demonstrating their ability to contribute meaningfully to ongoing research projects of the target topics.	Students must complete the Seminars on Global Issues B-I (VB30012) and the Practical Training on Global Issues B-I (VB30013). Students must take this course at the same time as or after having accomplished the Seminars on Global Issues B-II (VB30022). 英語で授業。主専攻必修科目。対面 Lectures are conducted in English. 主専攻必修科目。 face-to-face