

Students HANDBOOK

for the English-based Undergraduate Program
in Science and Engineering
WASEDA UNIVERSITY

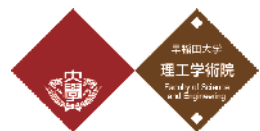
2020 April & September



Students HANDBOOK

**for the English-based
Undergraduate Program
in Science and Engineering**

2020



**Faculty of Science and Engineering
Waseda University**

Preserve this handbook until your graduation

***This handbook covers essential guidelines for your student life at Faculty of Science and Engineering, Waseda University**

This handbook contains information on academic policies, curriculum, graduation requirements, and school life that applies to undergraduate students in the Faculty of Science and Engineering. Please be careful not to lose this handbook. Even though new handbooks are issued each year, the academic policies, curriculum, and graduation requirements stated in the handbook issued in the year that you entered applies to you until you graduate.

Please read through this handbook at least once and consult it whenever you have questions related to your studies at Waseda University. In addition to the information in this handbook, the university posts important announcements on the websites listed on the next page. Students should check these websites regularly.

MyWaseda / Waseda-mail

This is an online system used by students, faculty and staff, and alumni of Waseda University. By logging into the system from this portal, you can get information or services tailored to your qualifications or attributes (information on courses such as registration, examinations, and reports, or information on public events such as lecture meetings, seminars, and symposiums).

Waseda mail is a web mail service that you can use over a web browser from anywhere. You can continue to use this email address after you graduate from the university.

<https://my.waseda.jp/>



Information categories

Information from the university

To log into the website, you must enter your MyWaseda ID and password issued to you when you enter the university.

Class support system “Waseda Moodle”

Waseda Moodle is a tool that has class support functions such as a lecture material download function. To use Waseda Moodle, log into MyWaseda and select “Waseda Moodle” from “Learning Support” in the left menu.

Students of Science and Engineering Schools website

This website for students of Science and Engineering Schools was created by the Faculty of Science and Engineering for purposes such as class support. To access the page, log into MyWaseda and select “Students of Science and Engineering Schools website” from the left menu. You can access information tailored to individual students, such as the result of course registration and class cancellations.

You should check these pages at least once a week.



Students of Science and Engineering Schools website

Faculty of Science and Engineering website

This website provides various types of information from the Faculty of Science and Engineering. Course registration, scholarship information and other important information are updated as needed.

<https://www.waseda.jp/fsci/en/>

* Check these web pages on a regular basis since the content of this handbook is subject to change.

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I

Features of the Faculty of Science and Engineering

Welcome to Waseda University! We are very happy that you have decided to study at Waseda University's Faculty of Science and Engineering. We look forward to working with you and hope that your undergraduate education here will be an exciting and rewarding experience. This handbook contains information to help you make most of your time here at Waseda. It explains the academic policies, the curricula, and the graduation requirements for students in the English-based Undergraduate Program in Science and Engineering (EBSE) at Waseda University. In this handbook, we will refer to students in this program as "EBSE students". EBSE has academic policies, curricula, and graduation requirements distinct from other programs.

The Faculty of Science and Engineering is composed of three undergraduate schools and five graduate schools. The names of the undergraduate schools and the departments belonging to each of them are shown below.

School of Fundamental Science and Engineering

Department of Mathematics

Department of Applied Mathematics

Department of Applied Mechanics and Aerospace Engineering

Department of Electronic and Physical Systems

Department of Computer Science and Engineering

Department of Communications and Computer Engineering

Department of Intermedia Art and Science

School of Creative Science and Engineering

Department of Architecture

Department of Modern Mechanical Engineering

Department of Industrial and Management Systems Engineering

Department of Civil and Environmental Engineering

Department of Resources and Environmental Engineering

School of Advanced Science and Engineering

Department of Physics

Department of Applied Physics

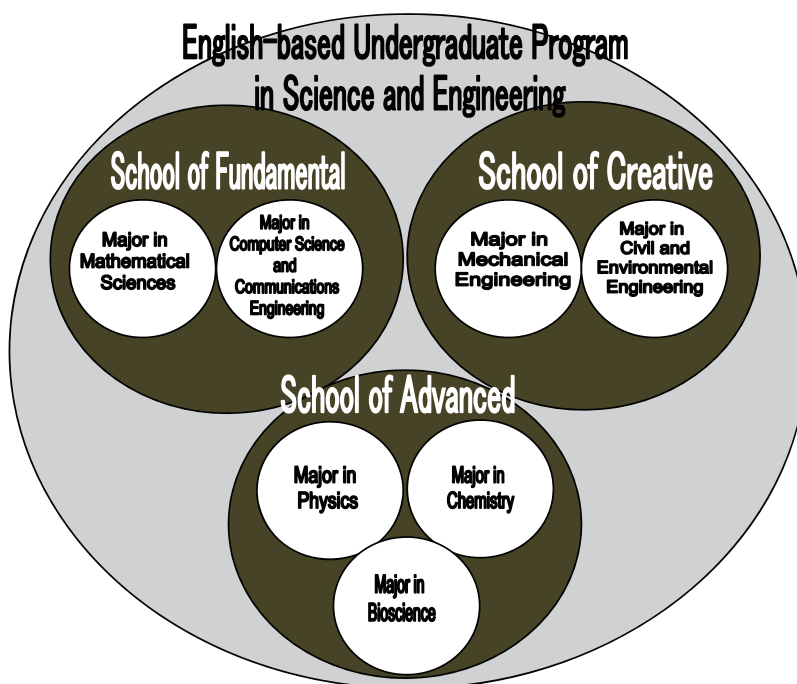
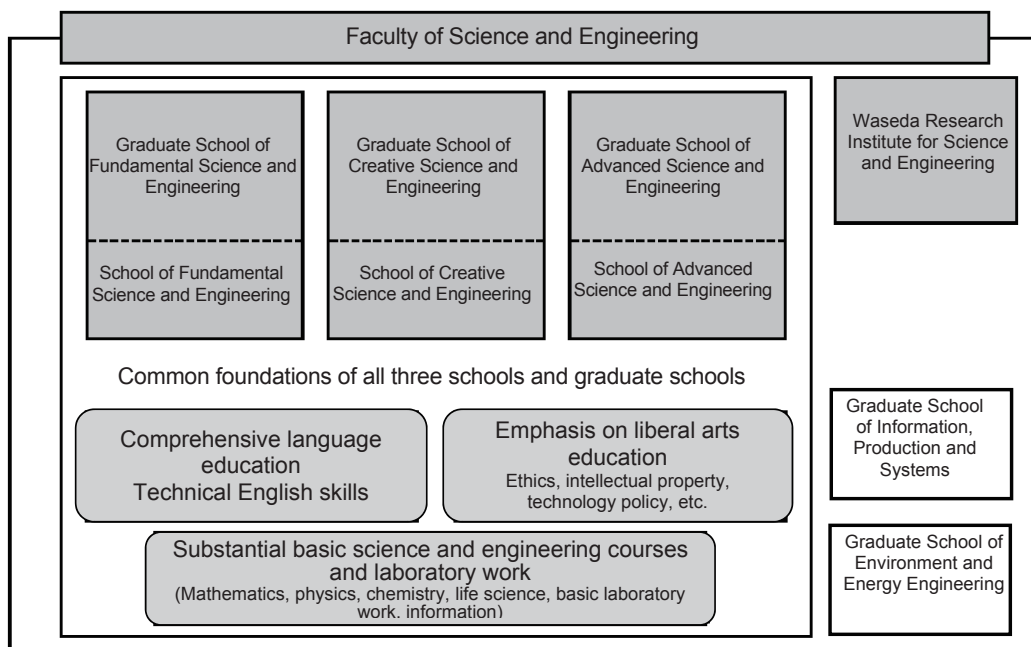
Department of Chemistry and Biochemistry

Department of Applied Chemistry

Department of Life Science and Medical Bioscience

Department of Electrical Engineering and Bioscience

<Organization of the Faculty of Science and Engineering>



II

History and Profile of the Faculty of Science and Engineering

1 History

In February 1908, Shigenobu Okuma, the founder of Waseda University, keenly realizing the importance of educating scientists and engineers, established a school of science and engineering, an achievement that had been thought of as impossible for a private university. Among private universities in Japan, it remains the science and engineering educational institution with the longest history. Since the first class of 37 graduates set out into the world in 1912, many graduates have followed in their footsteps and continue to contribute actively in various areas of society.

1882	Tokyo College established.
1902	Renamed Waseda University.
1908	Science and Engineering Department established , along with Mechanical Engineering and Electrical Engineering Divisions.
1920	Becomes a university under the New University Act; Science and Engineering Department renamed the School of Science and Engineering; Graduate School established.
1940	Science and Engineering School Research Laboratory established.
1949	Waseda University established under new educational system; eleven departments created in the First School of Science and Engineering: Mechanical Engineering, Electrical Engineering, Mining, Architecture, Applied Chemistry, Metallurgy, Electrical and Communications Engineering, Industrial Management, Civil Engineering, Applied Physics, and Mathematics. Established in the Second School of Science and Engineering are the departments of Mechanical Engineering, Electrical Engineering, Architecture, and Civil Engineering.
1951	Graduate School Master's Degree Programs established at Waseda University under the new educational system; Mechanical Engineering, Electrical Engineering, Structural Engineering, Mining and Metallurgy, and Applied Chemistry established as departments in the Graduate Schools of Engineering.
1953	Doctoral Degree Programs established in the Graduate School.
1967	Campus relocated to the Okubo Campus.
1968	Second School abolished; the First School of Science and Engineering renamed the School of Science and Engineering.
2007	System of three undergraduate schools and three graduate schools adopted; Environment and Energy Engineering Department became the independent Graduate School of Environment and Energy Engineering.
2008	100th anniversary of the founding of the School of Science and Engineering; Center for Advanced Biomedical Sciences established.
2009	Campus name changed to Nishi-Waseda Campus. Graduate School of Global Information and Telecommunication Studies, Graduate School of Information Production and Systems, and Graduate School of Environment and Energy Engineering incorporated into the Faculty of Science and Engineering.
2010	International program started.
2018	International program reorganized as English-based program.

2 Profiles, Educational & Research Goals and Three Fundamental Policies

The School of Fundamental Science and Engineering (FSE)

Profile

The School of Fundamental Science and Engineering focuses on areas related to information, machines, electronics, materials, and energy, and on the foundations upon which these areas rest: mathematics. FSE consists of the Department of Mathematics, the Department of Applied Mathematics, the Department of Applied Mechanics and Aerospace Engineering, the Department of Electronic and Physical Systems, the Department of Computer Science and Engineering, the Department of Communications and Computer Engineering, and the Department of Intermedia Art and Science. FSE aims to educate individuals who have the ability to think deeply and imaginatively about modern science and technology, as well as the fundamental principles on which they are based.

Educational & Research Goals

Utilizing Waseda University's holistic and creative approach, FSE promotes diverse exchanges in scholarship, culture, language, and values across the university, in both the student's academic and social environment. In this way, FSE fosters future members of society who will be able to contribute proactively to the global community. FSE also aims to equip students with a solid grounding in scientific and technical knowledge, as well as in humanities and social science, and to instill in them an active awareness of future possibilities that could help forge a new era.

FSE believes that, rather than confining themselves to their own discipline, researchers and engineers should develop global perspectives that transcend geographical and academic boundaries. Based on this vision, FSE aims to foster future members of society who can make a global contribution in a variety of fields related to key technologies such as information and communications systems, machinery, electronics, material resources, art and media on the common foundation of mathematics.

Three Fundamental Policies

1) Diploma Policy

FSE offers two majors: Mathematical Sciences (MS) and Computer Science and Communications Engineering (CSCE). In MS, students study the fundamentals of science as well as specialist mathematical theories and applications. In CSCE, students study the various theories and technologies related to information and communications in today's information society. In order to graduate, students must enroll in one of these majors, complete the required courses, complete the specialized courses in their major, and earn the number of credits required for graduation. MS students will receive a Bachelor of Science or Engineering degree, and CSCE students will receive a Bachelor of Engineering degree. Additionally, students who complete one of minors will receive certification to that effect.

2) Curriculum Policy

FSE offers two major programs, MS and CSCE, both of which are of an international standard, and both of which are designed to foster internationally-fluent future members of society. FSE also allows students the flexibility to study minors, thus extending the depth and breadth of their specialist knowledge.

In addition, FSE caters to students from a variety of cultural backgrounds by allowing them to follow their major, whilst also taking a foreign language course: one of these is designed to enhance English language proficiency and encourage overseas study, while the other focuses on Japanese language proficiency and Japanese culture. In this way, FSE aims to facilitate intercultural exchange and foster future members of society who will be able to forge connections between Japan and the wider world. In terms of assigning students to laboratories, students can be welcomed into any one of the laboratories in the department that offers their major, or indeed into any other laboratory in the school. This policy helps cultivate diverse specialists.

3) Admission Policy

In line with Waseda University's founding principle, "the preservation of the independence of scholarship," FSE invites applications from a wide range of researchers and engineers from Japan and

overseas who have the desire to acquire advanced knowledge, and who are capable of leading society and looking to impact the future of science and technology. Applicants will be selected based on their ability to study a science and technology curriculum in English, in order to obtain an English degree, and also based on their motivation to master the theoretical and practical abilities necessary in order to tackle both general and specialized courses.

To this end, FSE considers it a prerequisite that applicants not only have a reasonable command of English but also have basic academic skills at a high-school level or equivalent. FSE will also take into consideration the applicant's personal character, such as whether or not they have the communication skills required to play an active role on the world stage.

The School of Creative Science and Engineering (CSE)

Profile

The School of Creative Science and Engineering focuses on a wide range of urgent problems that the world faces today, especially problems concerning population growth, the environment, natural resources, energy, and food. CSE consists of the Department of Architecture, the Department of Modern Mechanical Engineering, the Department of Industrial and Management Systems Engineering, the Department of Civil and Environmental Engineering, and the Department of Resources and Environmental Engineering. CSE aims to educate scientists and engineers who can develop technologies that address the most pressing scientific and technological problems of today's world.

Educational & Research Goals

Based on the three key words of humans, life and environment, the School of Creative Science and Engineering aims to foster future members of society who can apply scientific and technological perspectives in solving the various lifestyle and environmental problems that occur in their particular field, and who can bring a new richness to society based on diverse values. In order to create such richness, students will receive a practice-oriented education and conduct research into technological and environmental systems used to support people's lives and create eco-friendly spaces, equipment and communities. This English language-based degree program is designed to foster internationally-fluent individuals who can make a global contribution in their field.

Three Fundamental Policies

1) Diploma Policy

Utilizing the originality of Waseda University, the School of Creative Science and Engineering facilitates diverse exchanges in scholarship, culture, language and values, across the university-wide educational environment. In this way, the program fosters future members of society who will be able to contribute proactively to the global community. We are currently facing considerable global problems such as population increase, food and water shortages, diminishing natural resources and energy sources. Global warming and associated natural disasters are also becoming increasingly serious. There are various social issues as well, including the aging society, regional disparities in the provision of advanced medical services, decaying social infrastructure, and the resulting decline in safety. The school thus aims to equip students with an understanding of such problems that will enable them to develop practical solutions based on scientific and technological perspectives, thereby creating a future with a wealth of possibilities. Specifically, the School consists of two majors: Mechanical Engineering (ME) and Civil and Environmental Engineering (CE). In ME, students not only focus on mechanical engineering but also explore its connections with architectural and management engineering. In CE, students tackle a range of issues from a global perspective – including environmental preservation, improving living environments, and ensuring the safety of human society – and apply an engineering perspective to such issues.

2) Curriculum Policy

The curriculum provided by the school is of an international standard. It allocates courses for each academic year in an effective manner. These courses include general engineering courses (which focus on mathematics, physics, and basic experimentation), specialized courses (which feature an organic combination of theory and practice), and language courses (which enable students to gain proficiency in English or in Japanese). For students in the early university years, the school has established a fieldwork-based school-wide SHIP course, which focuses on the themes of energy, environment,

disasters, human society, and design. The SHIP course is designed to help students master broad knowledge and perspectives concerning the two majors of the school, while also helping them to determine which specialized courses they will take in subsequent years. In the fourth year, the curriculum culminates in the final research project, undertaken in a laboratory and related to the specialized courses that formed part their major. In this way, the school aims to foster future members of society who have mastered specialized knowledge and who are equipped with international perspectives, engineering ethics, adequate communication skills, and the ability to play a leading role in future society.

3) Admission Policy

In line with Waseda University's founding principle, "the preservation of the independence of scholarship," the School of Creative Science and Engineering welcomes applications from individuals from Japan and overseas who possess a solid grounding in basic scholarship, a powerful intellectual curiosity, an enterprising spirit in line with the university's principles, and a strong motivation to pursue further study. When selecting applicants, the school places particular importance (among other things) on whether or not the applicant possesses the following: outstanding abilities in the natural sciences, sufficient command of English to study the various fields covered in that language, sufficient logical thinking ability, and the ability to play a leading role in future society, drawing on global insights, and a comprehensive grounding in the liberal arts.

The School of Advanced Science and Engineering (ASE)

Profile

The School of Advanced Science and Engineering focuses on the traditional areas of natural science as well as on applications of fundamental research. ASE consists of the Department of Physics, the Department of Applied Physics, the Department of Chemistry and Biochemistry, the Department of Applied Chemistry, the Department of Life Science and Medical Bioscience, and the Department of Electrical Engineering and Bioscience. The school aims to educate researchers who will work and lead at the frontiers of science and engineering.

Educational & Research Goals

The English degree program of ASE aims to foster internationally-fluent human resources who can act as international engineers or researchers of the future in cutting-edge or cross-disciplinary fields. The curriculums, all of which are taught in English in principle, enable students to master basic science and engineering knowledge as well as knowledge and experimental skills pertaining to specialized fields, and to gain the practical skills necessary to become global human resources.

Three Fundamental Policies

1) Diploma Policy

Utilizing Waseda University's synthetic and creative approach, ASE facilitates diverse exchanges in scholarship, culture, language, and values in the university-wide educational environment and the students' lifestyle, and thereby fosters global human resources who can contribute proactively to the global community.

ASE offers three majors: Physics Major, Chemistry Major, and Bioscience Major. The Physics Major focuses on physics, the foundational discipline underlining cutting-edge science and technology. In the Chemistry Major, students study the fundamentals of chemistry as a central science and the applications thereof. In the Bioscience Major, students learn the fundamentals of medical science and medical engineering knowledge as they relate to vital phenomena, and the technologies that apply such knowledge. Students will gain a basic grounding in their major and develop the ability to identify and solve problems as well as general analytical/judgment skills. They will also gain the international perspectives and practical skills necessary for acting as global human resources. In order to graduate, students must demonstrate their mastery of the program's targeted knowledge, methodological skills, and international fluency by earning the minimum number of credits within the allotted time period as set forth in their major's study guidelines and the criteria for advancement/graduation. ASE will confer on such graduates a Bachelor of Science or Bachelor of Engineering degree.

2) Curriculum Policy

ASE provides a practice-oriented curriculum in which students gain the necessary grounding in science and engineering, including the applications thereof, by studying subjects such as physics, chemistry, bioscience, information science, and mathematics. In their major (Physics, Chemistry, or Bioscience), students master the fundamentals of the disciplines pertaining to said major. ASE also provides a Minor in Electronics and Electrical Engineering, in which students study the fundamentals of the engineering applications relevant to their major.

ASE provides an English language course whereby students will develop the English language proficiency necessary to act as global human resources. ASE also offers a Japanese language course to those students whose first language is not Japanese. Those students who need to improve their English language proficiency can take a first-year course in technical English. ASE has also organized the curriculum in such a way that those students who wish to improve their English may go overseas on a short-term overseas student exchange program, while foreign students may take an internship.

ASE offers general culture courses designed to teach a broad range of knowledge. Catering primarily to foreign students, these courses focus on Japanese and Asian society and culture. The global human resources fostering courses are designed to foster the necessary attributes of global human resources, including knowledge and methodological skills, and practical skills such as the ability to identify and solve problems.

In their final year, students take Graduation Thesis A/B, during which they deploy the foundational knowledge and skills they have accumulated and develop the ability to identify and solve problems as well as general analytical/judgment skills. They will also enhance other abilities such as presentation.

3) Admission Policy

In line with Waseda University's founding principles "the preservation of the independence of scholarship," "the promotion of the practical application of scholarship," and the "fostering of good citizens," ASE invites a broad range of individuals from Japan and overseas who have a solid grounding in basic scholarship, a powerful intellectual curiosity, an enterprising spirit, and a strong motivation to study. ASE strives to select applicants who:

1. Are motivated to study natural science and related fields in English
2. Have sufficient command of English to study in that language or the potential to do so
3. Have sufficient logical thinking skills and can engage in the study of applying basic scholarship
4. Have the motivation to apply a general grounding in natural sciences and contribute to the international community
5. Have international perspectives or the flexibility to acquire international perspectives
6. Have sufficient grounding in basic scholarship at a high school (or equivalent thereof)

III

Requirements for a Degree (Graduation)

1	Credit System
2	Degree and Graduation
3	Majors and Minors
4	Tuition and Fees
5	Academic Term and Course Groups
6	Humanities, Social Sciences, and Language Courses (Group A Courses)
7	Core Mathematics and Science Courses (Group B Courses)
8	Courses in the Major (Group C Courses)
9	Requirements for each Major and List of Courses in the Major (Group C Courses)
	Major in Mathematical Sciences
	Major in Computer Science and Communications Engineering
	Major in Mechanical Engineering
	Major in Civil and Environmental Engineering
	Major in Physics
	Major in Chemistry
	Major in Bioscience
10	Requirements for each Minor and List of Courses in the Minor (Group C Courses)
	Minor in Mathematical Sciences
	Minor in Computer Science and Communications Engineering
	Minor in Applied Mechanics and Aerospace Engineering
	Minor in Physical Electronics
	Minor in Intermedia Arts and Sciences
	Minor in Electrical Engineering
11	Physical Education / Independent Study (Group D Courses)
12	Courses Offered by Other Programs, Majors, Schools, or Faculties
13	Obtaining Licenses and Professional Qualifications
14	Registration of Courses to Take
15	Class Time Slots
16	Examinations
17	Notes on Preparing Reports or Theses
18	Posting of Grades
19	Examination for Major Transfer

1 Credit System

Waseda University adopts a credit system, a system under which students register for courses and earn credits for them by meeting the requirements (e.g. passing an examination, writing a satisfactory paper, completing homework assignments, etc.) set by the instructor(s) in charge of the course. To earn a bachelor's degree students must earn at least 136 credits.

The number of credits for a course is calculated based on the expectation that 1 credit corresponds to 45 hours of learning, which includes the time spent in class and amount of study required outside of class. It should be noted that any course listed in this handbook as meeting 2 hours per week consists of a single 90-minute class per week.

Up to 49 credits can be registered for in one academic year.

2 Degree and Graduation

Each school grants a bachelor's degree to students who have attended the school for 4 years or longer and have obtained the prescribed number of credits for graduation (136 or more). Students cannot be registered in the university for over 8 years.

Diplomas will be dated either September 15 or March 15 of the relevant graduation year. Students who could not graduate in September or March can graduate at the end of the next semester, subject to the conditions noted below.

- (1) If the students were not able to graduate because they failed courses necessary for graduation due to failing exams or not satisfying requirements, then the students must re-take and pass them in the next semester in the following academic year.
- (2) If the students were not able to graduate because they did not submit a bachelor's thesis or a graduation project, then the students must submit an acceptable bachelor's thesis or graduation project in the next semester in the following academic year.

Departmental Affiliation and Degree:

When students enroll in the English-based Undergraduate Program in Science and Engineering, Waseda University, each student is automatically affiliated with the School responsible for administering the students' chosen major program. At the end of their third year, each student's departmental affiliation is determined by the School taking into account the student's academic performance and preference. The table below shows the departments which students may be affiliated with according to their chosen major (e.g. students who choose to Major in Mathematical Sciences will be affiliated with either the Department of Mathematics or the Department of Applied Mathematics at the beginning of their fourth year).

As shown in the table below, the type of degree (i.e. a Bachelor of Science degree or a Bachelor of Engineering degree) a student will be conferred upon graduation will depend on the student's departmental affiliation.

Table III-2: Departmental Affiliation and Degree

Major	Degree	Department	School
Mathematical Sciences	◆ Bachelor of Science	● Mathematics	Fundamental Science and Engineering
	◆ Bachelor of Engineering	● Applied Mathematics	
Computer Science and Communications Engineering	◆ Bachelor of Engineering	● Computer Science and Engineering ● Communications and Computer Engineering	
Mechanical Engineering	◆ Bachelor of Engineering	● Modern Mechanical Engineering	Creative Science and Engineering
Civil and Environmental Engineering	◆ Bachelor of Engineering	● Civil and Environmental Engineering ● Resources and Environmental Engineering	
Physics	◆ Bachelor of Science	● Physics	Advanced Science and Engineering
	◆ Bachelor of Engineering	● Applied Physics	
Chemistry	◆ Bachelor of Science	● Chemistry and Biochemistry	
	◆ Bachelor of Engineering	● Applied Chemistry	
Bioscience	◆ Bachelor of Science	● Life Science and Medical Bioscience*	
	◆ Bachelor of Engineering	● Electrical Engineering and Bioscience	
	◆ Bachelor of Engineering	● Electrical Engineering and Bioscience	

*In the Department of Life Science and Medical Bioscience, the type of bachelor's degree (i.e. a Bachelor of Science degree or a Bachelor of Engineering degree) a student will be conferred upon graduation will depend on the type of research (i.e. science or engineering) that is conducted by the faculty research group to which the student belongs

3 Majors and Minors

Majors

In the English-based Undergraduate Program in Science and Engineering, the term "major" refers to a program of study that leads to a Bachelor's degree in one of seven academics fields. Students select a major among those that are offered in the English-based programs in the schools to which they are admitted.

To receive a Bachelor's degree, students must earn at least 136 credits as specified by their major.

Minors

In the English-based Undergraduate Program in Science and Engineering, the term "minor" refers to an optional program of study in a second field (i.e. in addition to the major) that leads to certificate of completion.

To receive a certificate of completion in a minor, students must earn at least 12 credits as specified by their minor.

4 Tuition and Fees

(1) Payment dates

Tuition and fees must be paid by the following due dates:

Tuition and Fees	Due date for payment
Tuition and Fees for the spring semester	May 1
Tuition and Fees for the fall semester	October 1

(2) Tuition and fees

For April enrollees

		First year		Second year		Third year		Fourth year	
		Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester
Admission Fee		200,000	0	0	0	0	0	0	0
Tuition		723,000	723,000	823,000	823,000	823,000	823,000	823,000	823,000
Seminar Fee	Mathematical Sciences	36,000	36,000	30,000	30,000	30,000	30,000	30,000	30,000
	Compu ^{ter} Science and Communications Engineering			48,000	48,000	48,000	48,000	48,000	48,000
	Mechanical Engineering	51,000	51,000	52,000	52,000	52,000	52,000	53,000	53,000
	Civil and Environmental Engineering	52,000	52,000					52,000	52,000
	Physics	60,000	60,000	55,620	55,620	55,620	55,620	55,560	55,560
	Chemistry			68,400	68,400	68,400	68,400	68,400	68,400
	Bioscience			90,900	90,900	96,900	96,900	102,900	102,900
Membership Fee of Student Health Promotion Mutua ^l Aid Association		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Alumni Association Membership Fee		0	0	0	0	0	0	0	40,000
Total amount	Mathematical Sciences	960,500	760,500	854,500	854,500	854,500	854,500	854,500	894,500
	Compu ^{ter} Science and Communications Engineering			872,500	872,500	872,500	872,500	872,500	912,500
	Mechanical Engineering	975,500	775,500	876,500	876,500	876,500	876,500	877,500	917,500
	Civil and Environmental Engineering	976,500	776,500					876,500	916,500
	Physics	984,500	784,500	880,120	880,120	880,120	880,120	880,060	920,060
	Chemistry			892,900	892,900	892,900	892,900	892,900	932,900
	Bioscience			915,400	915,400	921,400	921,400	927,400	967,400
Yearly amount	Mathematical Sciences	1,721,000		1,709,000		1,709,000		1,749,000	
	Compu ^{ter} Science and Communications Engineering			1,745,000		1,745,000		1,785,000	
	Mechanical Engineering	1,751,000		1,753,000		1,753,000		1,795,000	
	Civil and Environmental Engineering	1,753,000						1,793,000	
	Physics	1,769,000		1,760,240		1,760,240		1,800,120	
	Chemistry			1,785,800		1,785,800		1,825,800	
	Bioscience			1,830,800		1,842,800		1,894,800	

*There are certain courses offered by Global Education Center and School of Education which may require separate fees.

*40,000 yen for the alumni association membership fee (for the period of 10 years after graduation) is required in the fall semester of fourth year.

For September enrollees

		First year		Second year		Third year		Fourth year	
		Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester
Admission Fee		200,000	0	0	0	0	0	0	0
Tuition		723,000	723,000	823,000	823,000	823,000	823,000	823,000	823,000
Seminar Fee	Mathematical Sciences	36,000	36,000	30,000	30,000	30,000	30,000	30,000	30,000
	Computer Science and Communications Engineering			48,000	48,000	48,000	48,000	48,000	48,000
	Mechanical Engineering	51,000	51,000	52,000	52,000	52,000	52,000	53,000	53,000
	Civil and Environmental Engineering	52,000	52,000					52,000	52,000
	Physics	60,000	60,000	55,620	55,620	55,620	55,620	55,560	55,560
	Chemistry			68,400	68,400	68,400	68,400	68,400	68,400
	Bioscience			90,900	90,900	96,900	96,900	102,900	102,900
Membership Fee of Student Health Promotion Mutual Aid Association		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Alumni Association Membership Fee		0	0	0	0	0	0	0	40,000
Total amount	Mathematical Sciences	960,500	760,500	854,500	854,500	854,500	854,500	854,500	894,500
	Computer Science and Communications Engineering			872,500	872,500	872,500	872,500	872,500	912,500
	Mechanical Engineering	975,500	775,500	876,500	876,500	876,500	876,500	877,500	917,500
	Civil and Environmental Engineering	976,500	776,500					876,500	916,500
	Physics	984,500	784,500	880,120	880,120	880,120	880,120	880,060	920,060
	Chemistry			892,900	892,900	892,900	892,900	892,900	932,900
	Bioscience			915,400	915,400	921,400	921,400	927,400	967,400
Yearly amount	Mathematical Sciences	1,721,000		1,709,000		1,709,000		1,749,000	
	Computer Science and Communications Engineering			1,745,000		1,745,000		1,785,000	
	Mechanical Engineering	1,751,000		1,753,000		1,753,000		1,795,000	
	Civil and Environmental Engineering	1,753,000						1,793,000	
	Physics	1,769,000		1,760,240		1,760,240		1,800,120	
	Chemistry			1,785,800		1,785,800		1,825,800	
	Bioscience			1,830,800		1,842,800		1,894,800	

*There are certain courses offered by Global Education Center and School of Education which may require separate fees.

*40,000 yen for the alumni association membership fee (for the period of 10 years after graduation) is required in the fall semester of fourth year.

(3) Tuition and fees for students enrolled longer than the given terms

Tuition and fees for students enrolled for more than the standard 4-year undergraduate period are as follows:

Number of credits to be earned additionally for graduation	Tuition	Seminar Fee and Membership Fee of Student Health Promotion Mutual Aid Association
Up to 4 credits	50% of the fee for the fourth year	Fee for the fourth year
5 or more credits	Fee for the fourth year	

* The “number of credits to be earned additionally for graduation” refers to the number calculated at the end of the first semester.

* For details about tuition and fees when on a leave of absence or study abroad, contact the Center for Science and Engineering. (Building No. 51, 1st floor)

(4) Payment method

Please pay tuition and fees by account transfer through your bank account at the financial institution, including Japan Post Bank, you have specified and registered with the university as part of the admission procedure.

Be sure to check the “Notification for Account Transfer of Tuition and Fees” that will be sent to your tuition and fees payer in advance. In case of any changes in the financial institution or account, please notify the Center for Science and Engineering (on the 1st floor of Building 51 in the Nishi Waseda Campus).

Tuition and fees must be paid by the specified due dates mentioned above. If you have any special reasons making it impossible to do so, consult the Center for Science and Engineering.

(5) Removal from the school register

If you fail to pay tuition and fees, you will be removed from the school register and accordingly, lose your status as student of the university. This applies with retroactive effect as of the end of the last semester for which you paid tuition and fees. In this case, some of the years at school and grades will be cancelled. If you want to withdraw from the university for some special reason before the date when you would be automatically removed from the school register (refer to the table below), consult the Center for Science and Engineering.

Tuition and fees	Due date for payment	Date of automatic removal from the school register	Date of withdrawal
Tuition and fees for the spring semester	May 1	September 20	March 31
Tuition and fees for the fall semester	October 1	March 31 of the following year	September 20

5 Academic Term and Course Groups

Both the quarter system (spring quarter, summer quarter, fall quarter and winter quarter) and semester system (spring semester and fall semester) are employed for academic terms at Waseda University. Each semester is made up of 15 weeks, while each quarter is made up of 8 weeks. Courses are basically divided into the following categories

- Year-round courses (full-year courses)
- Courses provided only in the spring semester (spring semester courses)
- Courses provided only in the fall semester (fall semester courses)
- Courses provided only in the spring quarter (spring quarter courses)
- Courses provided only in the summer quarter (summer quarter courses)
- Courses provided only in the fall quarter (fall quarter courses)
- Courses provided only in the winter quarter (winter quarter courses)
- Intensive courses

Courses are roughly divided into Groups A to D (see the table below). The contents of each group are explained in more detail in subsequent sections.

Group A	Humanities and Social Sciences (A1) Foreign Languages (A2)
Group B	Core Mathematics (B1) Core Physics / Core Chemistry / Core Bioscience (B2) Core Laboratory (B3) Core Computer Science (B4)
Group C	Courses in the Major
Group D	Physical Education / Independent Study

Courses in Groups A to D are divided into courses that are counted toward graduation and courses that are not counted for graduation:

(1) Courses that are counted toward the credits required for graduation

These courses are further divided into the following types. The grades of the courses are recorded on the grade report.

Required courses	Courses that students must take, pass, and earn credit for graduation
Restricted elective courses	Courses that students must select from a specified range of courses, pass, and earn credit for graduation
Elective courses	Courses that students can select freely from relevant elective courses and earn at least a specified minimum number of credits for graduation

(2) Courses that are not counted toward the credits required for graduation

Non-degree courses	Courses that allow students to earn credits when achieving a passing score, which are recorded on the grade report but do not count as credits for graduation
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(3) Number of credits required for graduation

The following table lists the specified minimum number of credits required to be earned from individual groups toward graduation. The number of credits specified as **“Additional Electives”** in the table below refers to the difference between **the total minimum numbers of credits students must earn for graduation (136 credits)** and **the total minimum numbers of credits to be earned from Groups A to D.** Students must earn the number of credits as Additional Electives specified by their own major in the following ways.

- Earn more credits from courses in Groups A, B, or C than the minimum number required for graduation.
- Earn credits from courses in Group D (Physical Education / Independent Study). Up to 4 credits can be counted for graduation. For more details, refer to Section III-11 in this handbook.
- Earn credits from courses offered by other majors within the student’s school, other schools in the Faculty of Science and Engineering (FSE), or faculties other than or bodies outside of FSE. For more details, please refer to Section III-12 in this handbook. Please note that non-degree courses are not counted as credits toward graduation.

Table III-5(3): Specified minimum number of credits required to be earned from individual Groups A to D toward graduation by major

Majors		Group																	Total
		Specified number of credits required for Groups A to C															Additional Electives		
		A1	A2				B1	B2			B3	B4	C			D			
			Humanities and Social Sciences	Foreign Language (English for science and engineering)	Foreign Language (English as a second language)	Foreign Language (Japanese)		Foreign Language (Languages other than English or Japanese)	Core Mathematics	Core Physics			Core Chemistry	Core Bioscience	Core Laboratory				
Intakes																			
Mathematical Sciences	Apr.	10	2	8	0	0	20	6	2	0	3	4	32	16	17	0	16	136	
	Sep.	10	2	0	4	0	20	6	2	0	3	4	32	16	17	0	20		
Computer Science and Communications Engineering	Apr.	10	2	8	0	0	12	6	4	0	3	6	26	38	5	0	16	136	
	Sep.	10	2	0	4	0	12	6	4	0	3	6	26	38	5	0	20		
Mechanical Engineering	Apr.	10	2	8	0	0	10	8	4	2	3	4	42	0	26	0	17	136	
	Sep.	10	2	0	4	0	10	8	4	2	3	4	42	0	26	0	21		
Civil and Environmental Engineering	Apr.	10	2	8	0	0	10	6	4	2	3	4	53	0	20	0	14	136	
	Sep.	10	2	0	4	0	10	6	4	2	3	4	53	0	20	0	18		
Physics	Apr.	10	2	8	0	0	20	8	4		3	4	27	26	8	0	16	136	
	Sep.	10	2	0	4	0	20	8	4		3	4	27	26	8	0	20		
Chemistry	Apr.	10	2	8	0	0	12	6	4	2	3	4	32	26	4	0	23	136	
	Sep.	10	2	0	4	0	12	6	4	2	3	4	32	26	4	0	27		
Bioscience	Apr.	10	2	8	0	0	18	8	4	2	3	4	33	28	6	0	10	136	
	Sep.	10	2	0	4	0	18	8	4	2	3	4	33	28	6	0	14		

(4) Provisional graduate enrollment system

From the viewpoint of coherent education between undergraduate and graduate programs, each school adopts a system under which fourth year students can take specified lecture courses offered by the graduate school in which they plan to study. Earned credits under this system are counted toward the credits required for completion of master's programs (30 credits) up to upper limits set by individual departments, as shown on the following table;

Table III-5(4)

Graduate School	Department	Upper limit on the number of credits (earned under this system) to be counted toward completion of master's programs
Fundamental Science and Engineering	Pure & Applied Mathematics	10
	Computer Science & Communications Engineering	10
	Intermedia Studies	10
Creative Science and Engineering	Architecture	10
	Modern Mechanical Engineering	10
	Civil & Environmental Engineering	0
	Earth Sciences, Resources and Environmental Engineering	10
Advanced Science and Engineering	Pure & Applied Physics	10
	Chemistry & Biochemistry	10
	Applied Chemistry	10
	Life Science & Medical Bioscience	10
	Electrical Engineering & Bioscience	10
	Integrative Bioscience & Biomedical Engineering	10
	Nanoscience & Nanoengineering	10

*For more details about the system & procedures, refer to the Course Registration Guide to be distributed at the beginning of the semester's course registration periods in every academic year.

(5) Notice of absence

- (1) If you were absent from a class or examination of any courses registered with the school or the Global Education Center due to special circumstances (e.g. illness requiring medical attention), you must obtain a "Notification of Absence for Class & Examinations" from the Center for Science and Engineering (on 1st floor of Building 51 in Nishi Waseda Campus) and submit it to the instructors in charge. If you were absent from classes of a laboratory work course, submit a notice of absence form to the relevant laboratories (some laboratories may specify other forms to fill out).
- (2) If you were absent from classes of a course offered by other Faculties outside of FSE, report your absence with notice of absence forms specified by them according to their procedure.
- (3) "Notification of Absence for Class & Examinations" must be accompanied by proof showing reasons of your absence (e.g. copy of a medical certificate).

6 Humanities, Social Sciences, and Language Courses (Group A Courses)

Group A courses are divided into Group A1 (Humanities and Social Sciences Courses) and Group A2 (Foreign Language Courses). Students must earn the specified number of credits from this group according to the course requirements and restrictions specified by their department.

As for courses in Group A1 (Humanities and Social Sciences Courses), up to 6 credits can be registered for in one semester.

(1) Specified minimum number of credits of different majors

Table III-6(1)

Major	(Intakes)	Group A1	Group A2 (Foreign Language Courses)			
		Humanities and Social Sciences	English for Science and Engineering	English as a Second Language	Japanese	Languages Other than English or Japanese
Mathematical Sciences	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Computer Science and Communications Engineering	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Mechanical Engineering	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Civil and Environmental Engineering	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Physics	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Chemistry	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits
Bioscience	(April)	10 credits	2 credits	8 credits	0 credits	0 credits
	(September)	10 credits	2 credits	0 credits	4 credits	0 credits

(2) Group A1 courses (Humanities and Social Sciences)

This course group consists of courses in the humanities and social sciences, which are fields of fundamental importance regardless of one's major.

To fulfill the graduation requirements, students must earn a total of 10 credits from Group A1 courses. If a student chooses to take more than 10 credits of Group A1 courses, then any credits above the required number will be counted as "Additional Electives".

Students are free to select any courses to fulfill this requirement, but we strongly encourage students to make thoughtful and coherent selections that balance depth with breadth. Although the Group A1 courses are divided into five subgroups, we strongly recommend that students do not attempt to fulfill their 10 credit requirement by taking courses from only one subgroup. Moreover, from the standpoint of coverage and coherence, we strongly recommend that students taking certain courses from the course list take them as a pair rather than in isolation.

This does not necessarily mean taking both courses in the same quarter/semester. It means taking one course of the pair during quarter/semester and taking the other course of the pair in a subsequent quarter/semester. Courses that should be taken as a pair are listed below.

- | | |
|---|---|
| 1) Great Books of the West | Great Books of the East |
| 2) Great Art of the West | Great Art of the East |
| 3) Introduction to Macroeconomics | Introduction to Microeconomics |
| 4) History of Pre-Modern Japan | History of Modern Japan |
| 5) History of Western Civilization to the Renaissance | History of Western Civilization since the Renaissance |
| 6) History of Science | Philosophy of Science |
| 7) Ancient and Medieval Philosophy | Modern and Contemporary Philosophy |

Table III-6(2): Course Areas and Overview

Course Areas	Course Overview	Course Lists
Art and Literature	These courses examine the artistic and literary masterpieces of the East and West. By focusing on such works, they aim to cultivate students' aesthetic, critical, and philosophical sensibilities.	<ul style="list-style-type: none"> ● Great Books of the West ● Great Books of the East ● Great Art of the West ● Great Art of the East ● Topics in Art and Literature
Economics and Political Science	These courses introduce students to fundamental ideas in economics and political science. They aim to provide students with perspectives and tools to analyze and offer descriptive and normative accounts of society.	<ul style="list-style-type: none"> ● Japanese Civil Law ● Jurisprudence ● Comparative Politics ● International Relations ● Social and Political Theory ● Introduction to Macroeconomics ● Introduction to Microeconomics ● Introduction to Game Theory ● Topics in Economics and Political Science
History	These courses present and analyze historical events, ideas, and individuals of different specific regions and/or time periods. In addition, they encourage students to reflect on how the present is a product of the past, the nature of history as a discipline, the meaning of history, and the character of historical judgments.	<ul style="list-style-type: none"> ● History of Pre-Modern Japan ● History of Modern Japan ● History of Contemporary Japan ● History of China ● History of East Asia ● History of Western Civilization to the Renaissance ● History of Western Civilization since the Renaissance ● Topics in History
History & Philosophy of Science	These courses examine the historical and philosophical dimensions of the sciences. They aim to give students an understanding of the historical development of science and of the philosophical issues that underlie and surround science.	<ul style="list-style-type: none"> ● Introduction to Logic ● Language, Logic, and Mind ● History of Science ● Philosophy of Science ● Topics in History and Philosophy of Science
Philosophy and Religion	These courses provide students an understanding of the fundamental ideas and issues in philosophy and religion. They encourage students to engage in dialogue on philosophy and religion, to reflect on the meaning of their lives, to learn how to defend their own viewpoints, and to be responsive to the tensions between reason and revelation.	<ul style="list-style-type: none"> ● Ethics ● Ancient and Medieval Philosophy ● Modern and Contemporary Philosophy ● Introduction to Religion ● Introduction to Christianity ● Religion in Japan ● Science and Religion ● Topics in Philosophy and Religion

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Great Books of the West	2	V	2				2			
Great Books of the East	2	V	2				2			
Great Art of the West	2	V	4				4			
Great Art of the East	2	V	4				4			
Topics in Art and Literature	2	V		4				4		
Japanese Civil Law	2	Spring	2				2			
Jurisprudence	2	Fall	2				2			
Comparative Politics	2	Spring	2				2			
International Relations	2	Summer (Q)	4				4			
Social and Political Theory	2	Spring (Q)	4				4			
Introduction to Macroeconomics	2	Winter (Q)	4				4			
Introduction to Microeconomics	2	Fall (Q)	4				4			
Introduction to Game Theory	2	Spring	2				2			
Topics in Economics and Political Science	2	Fall		2				2		
History of Pre-Modern Japan	2	V	4				4			
History of Modern Japan	2	V	4				4			
History of Contemporary Japan	2	V	4				4			
History of China	2	Spring	2				2			
History of East Asia	2	Summer (Q)	4				4			
History of Western Civilization to the Renaissance	2	Fall	4				4			
History of Western Civilization since the Renaissance	2	Spring (Q)		4				4		
Topics in History	2	Fall		2				2		
Introduction to Logic	2	Fall	2				2			
Language, Logic, and Mind	2	Summer (Q)		4			4			
History of Science	2	Fall	2				2			
Philosophy of Science	2	Fall	2				2			
Topics in History and Philosophy of Science	2	Spring (Q)		4				4		
Ethics	2	V	V				V			
Ancient and Medieval Philosophy	2	V	2				2			
Modern and Contemporary Philosophy	2	V		V			V			
Introduction to Religion	1	Winter (Q)	2				2			
Introduction to Christianity	1	Spring (Q)	2				2			
Religion in Japan	1	Summer (Q)	2				2			
Science and Religion	1	Spring (Q)	2				2			
Topics in Philosophy and Religion	2	Fall		2				2		

V = varies depending on the course section (i.e. the course has multiple sections)

* (Q) = Quarter Course

(3) Group A2 courses (Foreign language courses)

(I) English for Science and Engineering

Both April and September enrollees are required to earn a total of 2 credits from the category of “English for Science and Engineering” in the Group A2 courses to graduate.

English (required course)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Academic Study Skills A	1	Fall (Q)	4				4			
Academic Study Skills B	1	Winter (Q)	4				4			

(II) English as a second language

April enrollees only are required to earn a total of 8 credits from the category of “English as a second language” in the Group A2 courses to graduate. Students must take course in their first semester of the freshman year.

English (required course)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Academic English A	1	Spring (Q)	4							
Academic English B	1	Summer (Q)	4							
Laboratory English A	1	Spring (Q)	4							
Laboratory English B	1	Summer (Q)	4							
Academic Fundamentals A	1	Spring (Q)	4							
Academic Fundamentals B	1	Summer (Q)	4							
Academic Fundamentals C	1	Spring (Q)	4							
Academic Fundamentals D	1	Summer (Q)	4							

(III) Japanese (For September enrollees only)

All September enrollees in this program must undertake Japanese language study totaling 4 credits from Japanese 1, Japanese 2 and other courses offered by the Center for Japanese Language (CJL). September enrollees are free to select any courses to fulfill this requirement. Any credits of Japanese language courses will be applied toward credits required for graduation up to the upper limit shown in following table.

Number of Maximum credits applied toward credits required for graduation

Major	Number of Maximum credits
Mathematical Sciences	8
Computer Science and Communications Engineering	8
Mechanical Engineering	20
Civil and Environmental Engineering	8
Physics	8
Chemistry	8
Bioscience	8

To understand university-level courses given in Japanese, a level of proficiency at least sufficient to pass Level N1 of the Japanese Language Proficiency Test is generally needed. Learning Japanese will enable one to communicate more easily with Japanese students and faculty members. Furthermore, developing Japanese proficiency will be useful for future research, job hunting and proceeding to further education in Japan. For these reasons, students are strongly recommended to begin taking Japanese language classes early in their studies.

Japanese (restricted elective course)

Language

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Japanese 1	2	Fall					4			
Japanese 2	2	Spring					4			
Any courses offered by CJL			Described in "Registration Guidebook & Syllabus" issued by CJL							

Japanese 1 and Japanese 2 are only available for September enrollees and held at the Nishi-Waseda Campus. April enrollees are not able to register for those courses. The other Japanese language courses offered by CJL are basically held at the Waseda Campus.

For students who are proficient in Japanese, there are variety of higher level courses offered by CJL. In addition, Global Education Center offers some on-demand courses taught in Japanese, and they are also available as Group A2 courses. The list of courses offered by GEC is announced on the FSE website prior to the course registration periods.

***For more information about CJL courses, please refer to the following website (URL: <https://www.waseda.jp/inst/cjl/en/students/registration/>).**

(IV) Languages other than English or Japanese

In addition to Japanese, courses in German and Chinese are offered.

Notes on taking Language courses other than English or Japanese:

- Courses with Roman numerals (I, II or III) must be taken in numerical order.

Languages other than English or Japanese (elective course)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
German I	1	Spring	2				2			
German II	1	Fall	2				2			
Chinese I	1	Spring	2				2			
Chinese II	1	Fall	2				2			

7 Core Mathematics and Science Courses (Group B Courses)

The aim of Group B courses is to provide the foundational knowledge in the sciences and mathematics necessary to understand more specialized fields. The courses include mathematics, physics, chemistry, bioscience, laboratory, and computer science. Students are required to take courses specified by their major as required courses, and earn the specified minimum number of credits for this group.

(1) The specified minimum number of credits

Table III-7 (1):

Major	Group B					
	B1	B2			B3	B4
	Core Mathematics	Core Physics	Core Chemistry	Core Bioscience	Core Laboratory	Core Computer Science
Mathematical Sciences	20 credits	6 credits	2 credits	0 credits	3 credits	4 credits
Computer Science and Communications Engineering	12 credits	6 credits	4 credits	0 credits	3 credits	6 credits
Mechanical Engineering	10 credits	8 credits	4 credits	2 credits	3 credits	4 credits
Civil and Environmental Engineering	10 credits	6 credits	4 credits	2 credits	3 credits	4 credits
Physics	20 credits	8 credits	4 credits		3 credits	4 credits
Chemistry	12 credits	6 credits	4 credits	2 credits	3 credits	4 credits
Bioscience	18 credits	8 credits	4 credits	2 credits	3 credits	4 credits

(2) Required course by major

Table III-7(2):

Group	Course	Number of Credits	Major			
			Mathematical Sciences	Computer Science and Communications Engineering	Mechanical Engineering	Civil and Environmental Engineering
B1: Core Mathematics	Calculus A	2	Required	Required	Required	Required
	Calculus B	2	Required	Required	Required	Required
	Calculus C	2	Required	Required	Required	Required
	Linear Algebra A	2	Required	Required	Required	Required
	Linear Algebra B	2	Required	Required	Required	Required
	Ordinary Differential Equations	2	Required	Elective	Elective	Elective
	Vector Calculus	2	Required	Elective	Elective	Elective
	Complex Analysis	2	Required	Elective	Elective	Elective
	Fourier Analysis	2	Required	Elective	Elective	Elective
B2: Core Physics	General Physics A: Mechanics	3	Required	Required	Required	Required
	General Physics B: Waves, Optics, and Thermodynamics	2	Elective	Elective	Required	Elective
	General Physics C: Electromagnetism	3	Required	Required	Required	Required
B2: Core Chemistry	General Chemistry A	2	Required	Required	Required	Required
	General Chemistry B	2	Elective	Required	Required	Required
B2: Core Bioscience	Introduction to Bioscience	2	Elective	Elective	Required	Required
	Mind Biology	2	Elective	Elective	Elective	Elective
B3: Core Laboratory	Science and Engineering Laboratory	3	Required	Required	Required	Required
B4: Core Computer Science	Introduction to C Programming	2	(recommended) Restricted Elective *1	Restricted Elective *1	(recommended) Restricted Elective *1	Restricted Elective *1
	Introduction to Java Programming	2	Restricted Elective *1	Restricted Elective *1	Restricted Elective *1	Restricted Elective *1
	Introduction to Fortran Programming	2	Restricted Elective *1	Restricted Elective *1	Restricted Elective *1	(recommended) Restricted Elective *1
	C Programming	2	Required	Required	Required	Elective
	Java Programming	2	Elective	Required	Elective	Elective
	Fortran Programming	2	Elective	Elective	Elective	Required

* If students take some “Elective” courses for their major as specified above, those credits will be counted as “*Additional Electives*” (see the Table III-5(3) in Section 5 “Academic Term and Course Groups of Chapter III of this Handbook)

*1: Students are required to earn **2 credits** from one of Introduction to C Programming, Introduction to Java Programming, or Introduction to Fortran Programming. If they have earned more than 2 credits from those courses, the excess WILL NOT be counted toward graduation (but will be mentioned on their transcript).

Table III-7(2):

Group	Course	Number of Credits	Major		
			Physics	Chemistry	Bioscience
B1: Core Mathematics	Calculus A	2	Required	Required	Required
	Calculus B	2	Required	Required	Required
	Calculus C	2	Required	Required	Required
	Linear Algebra A	2	Required	Required	Required
	Linear Algebra B	2	Required	Required	Required
	Ordinary Differential Equations	2	Required	Elective	Required
	Vector Calculus	2	Required	Elective	Required
	Complex Analysis	2	Required	Elective	Elective
	Fourier Analysis	2	Required	Elective	Required
B2: Core Physics	Introduction to Probability and Statistics	2	Required	Required	Required
	General Physics A: Mechanics	3	Required	Required	Required
	General Physics B: Waves, Optics, and Thermodynamics	2	Required	Elective	Required
B2: Core Chemistry	General Physics C: Electromagnetism	3	Required	Required	Required
	General Chemistry A	2	Restricted Elective *2	Required	Required
B2: Core Bioscience	General Chemistry B	2	Restricted Elective *2	Required	Required
	Introduction to Bioscience	2	Restricted Elective *2	Required	Required
B4: Core Computer Science	Mind Biology	2	Elective	Elective	Elective
	Science and Engineering Laboratory	3	Required	Required	Required
	Introduction to C Programming	2	Restricted Elective *1	Restricted Elective *1	(recommended) Restricted Elective *1
	Introduction to Java Programming	2	Restricted Elective *1	Restricted Elective *1	Restricted Elective *1
	Introduction to Fortran Programming	2	Restricted Elective *1	Restricted Elective *1	Restricted Elective *1
	C Programming	2	Restricted Elective *3	Restricted Elective *3	Required
	Java Programming	2	Restricted Elective *3	Restricted Elective *3	Elective
	Fortran Programming	2	Restricted Elective *3	Restricted Elective *3	Elective

* If students take some “Elective” courses for their major as specified above, those credits will be counted as “***Additional Electives***” (see the Table III-5(3) in Section 5 “Academic Term and Course Groups of Chapter III of this Handbook”).

*¹: Students are required to earn **2 credits** from one of Introduction to C Programming, Introduction to Java Programming, or Introduction to Fortran Programming. If they have earned more than 2 credits from those courses, the excess WILL NOT be counted toward graduation (but will be mentioned on their transcript).

*²: Students in the Major in Physics are required to earn **4 credits** from General Chemistry A, General Chemistry B, and Introduction to Bioscience. If students earn more than 4 credits from those courses above, the excess can be counted toward graduation as “***Additional Electives***” (see the Table III-5(3) in Section 5 “Academic Term and Course Groups of Chapter III of this Handbook”).

*³: Students in the Major in Physics and the Major in Chemistry are required to earn **2 credits** from C Programming, Java Programming, and Fortran Programming. If students earn more than 2 credits from those courses above, the excess can be counted toward graduation as “***Additional Electives***” (see the Table III-5(3) in Section 5 “Academic Term and Course Groups of Chapter III of this Handbook”).

(I) Core Mathematics

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Calculus A	2	Fall (Q)	4				4			
Calculus B	2	Winter (Q)	4				4			
Calculus C	2	Spring (Q)		4			4			
Linear Algebra A	2	Winter (Q)	4				4			
Linear Algebra B	2	Spring (Q)		4			4			
Ordinary Differential Equations (1)	2	Summer (Q)		4			4			
Ordinary Differential Equations (2) (2nd year and above class)	2	Fall (Q)		4				4		
Vector Calculus (1)	2	Summer (Q)		4			4			
Vector Calculus (2) (2nd year and above class)	2	Fall (Q)		4				4		
Complex Analysis	2	Fall (Q)		4				4		
Fourier Analysis	2	Winter (Q)		4				4		
Introduction to Probability and Statistics (1)	2	Summer (Q)	4				4			
Introduction to Probability and Statistics (2)	2	Fall (Q)	4				4			

*“Ordinary Differential Equations”, “Vector Calculus”, “Introduction to Probability and Statistics” are allocated to the Summer Quarter and Fall Quarter. Students can earn credits from those courses held in either Quarter, but not both. If students take the course held in Summer Quarter and fail it, they can apply again for the same course in the Fall Quarter within the same academic year.

**“Ordinary Differential Equations”, “Vector Calculus” are set in multiple classes as above and the academic year in which students can register for the first time differs between April enrollees and September enrollees. Accordingly, students must apply for the appropriate class at the time of course registration.

(II) Core Physics

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
General Physics A: Mechanics	3	Fall (Q)	6				6			
General Physics B: Waves, Optics, and Thermodynamics	2	Winter (Q)	4				4			
General Physics C: Electromagnetism	3	Spring (Q)		6			6			

(III) Core Chemistry

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
General Chemistry A	2	Fall (Q)	4				4			
General Chemistry B	2	Winter (Q)	4				4			

(IV) Core Bioscience

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Bioscience	2	Spring (Q)	4				4			
Mind Biology	2	Summer (Q)		4			4			

(V) Core Laboratory

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Science and Engineering Laboratory	3	Fall	8				8			

(VI) Core Computer Science

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to C Programming (1)	2	Spring	2				2			
Introduction to C Programming (2)	2	Spring	2				2			
Introduction to C Programming (3)	2	Fall	2				2			
Introduction to C Programming (4)	2	Fall	2				2			
Introduction to Java Programming	2	Spring		2			2			
Introduction to Fortran Programming	2	Spring		2			2			
C Programming (1)	2	Fall	2					2		
C Programming (2)	2	Spring		2			2			
C Programming (3)	2	Spring		2			2			
Java Programming	2	Fall		2				2		
Fortran Programming	2	Fall		2				2		

* (Q) = Quarter Course

*"Introduction to C Programming", "C Programming" are allocated to Spring Semester and Fall Semester. Students can earn 2 credits from those courses held in either Semester, but not both. If students take the course held in Spring Semester and fail it, they can apply again for the same course in Fall Semester within the same academic year.

*"C Programming" is set in multiple classes as above and the academic year in which students can register for the first time differs between April enrollees and September enrollees. Accordingly students must apply for an appropriate class at the time of course registration.

8 Courses in the Major (Group C Courses)

Group C courses are divided into required courses, restricted elective courses, and elective courses.

(1) Required courses

All majors provide required courses. Students must register for those courses and earn credits for them.

(2) Restricted elective courses

All majors provide restricted elective courses. Students must select and register for a certain number of these courses and earn a specified number of credits.

(3) Elective courses

Students can take elective courses in the Group C courses to earn credits according to their interests. A certain number of elective courses must be taken to graduate. Some majors require or strongly recommend taking certain elective courses for students hoping to attend a graduate program in the Faculty of Science and Engineering. If you have any questions about specific elective courses, please consult the class academic advisor in your major.

(4) Common courses for School of Fundamental Science and Engineering

Students in the School of Fundamental Science and Engineering can register courses from the Common courses for School of Fundamental Science and Engineering, although those credits **CANNOT be counted as Group C**. All of those credits will be counted toward graduation as “*Additional Electives*” (see the Table III-5(3) in Section 5 Academic Term and Course Groups of Chapter III of this Handbook).

Notes on taking Group C courses

- Courses with Roman numerals (I, II or III) must be taken in numerical order.
- Courses with “A,” “B,” and “C” can be taken at the same time.

9 Requirements for each Major and List of Courses in the Major (Group C Courses)

Major in Mathematical Sciences

The Major in Mathematical Sciences will provide a broad curriculum, ranging from fundamental to applied mathematics. The aim is to equip students with knowledge not only of mathematics but also its connections to scientific and engineering fields, and to provide students with the mathematical skills needed to make a contribution to society. The course places particular focus on three topics that are essential in modern society: nonlinear mathematics, computational mathematics and statistical mathematics. In order to transcend existing frameworks and forge new mathematical fields, we have developed a curriculum system with links to other minors, enabling students to study science and engineering in an interdisciplinary manner, exposing them to mathematical perspectives.

In the first year, students will take courses in the fundamentals of science and engineering, including mathematics, natural sciences, and information science. From the second year onwards, they will take additional courses focused specifically on mathematics. Initially, they will take foundational courses in pure mathematics (such as algebra, geometry, and analysis) as well as foundational courses in applied mathematics (such as statistics and numerical analysis). From the third year onwards, students will select courses in the major according to their own interests and aspirations. They will be able to choose from either the themes of nonlinear analysis, computational mathematics, and statistical mathematics, or from algebra and geometry. In the fourth year, students will be assigned to a laboratory and will be required to undertake a final research project under the guidance of their research supervisor.

This educational system is designed to instill logical and mathematical-thinking ability, in order to generate genuine scientific and technological innovations, and to foster future scientists and engineers equipped with international communication skills.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
32	16	17

- If students have earned more than 16 credits in Group C restricted elective courses offered by the Major in Mathematical Sciences, the excess credits can be appropriated to Group C elective courses.

Graduation thesis/research commencement conditions

We designate “Research Project Fall/Spring” as required courses for the fourth year. Students will be assigned to a laboratory and will be required to undertake their final research project under the guidance of their research supervisors.

In order to undertake the research project, students must, in principle, satisfy the following conditions:

- 12 or more credits in Group A courses
- 30 or more credits in Group B courses
- 14 or more credits in the required Group C courses

Recommended courses / special instruction

September enrollees are encouraged to take the “Special Seminar” in Spring of the third year.

In the “Special Seminar”, they can learn advanced mathematics under the guidance of their research supervisors.

List of courses for the Major in Mathematical Sciences

(I) Required courses (Math)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Survey of Modern Mathematical Sciences A	1	Winter (Q)	2				2			
Foundations of Set Theory	2	Spring (Q)		4			4			
Survey of Modern Mathematical Sciences B	1	Spring (Q)		2			2			
Foundations of Algebra A	2	Fall		2				2		
Foundations of Algebra B	2	Fall		2				2		
Foundations of Analysis 1	2	Fall		2				2		
Foundations of Geometry	2	Fall		2				2		
Exercises in Geometry	2	Fall		2				2		
Foundations of Analysis 2	2	Spring			2			2		
Foundations of Statistics A	2	Spring			2			2		
Foundations of Numerical Analysis	2	Spring			2			2		
Exercises in Numerical Analysis	2	Spring			2			2		
Foundations of Statistics B	2	Fall			2				2	
Research Project Spring	4	Spring				⊙				⊙
Research Project Fall	4	Fall				⊙				⊙
Required Courses total	32									

(II) Restricted elective courses (Math)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Information Theory	2	Spring		2				2		
Foundations of Analysis 3	2	Fall		2				2		
Fundamentals of Programming	2	Spring (Q)		4				4		
Algebra A	2	Spring			2			2		
Geometry A	2	Spring			2			2		
Measure Theory	2	Spring			2			2		
Differential Equations A	2	Spring			2			2		
Functional Analysis A	2	Spring			2			2		
Applied Statistics	2	Fall			2				2	
Time Series Analysis	2	Fall			2				2	
Mathematical Statistics	2	Fall			2				2	
Numerical Analysis and Simulation	2	Fall			2				2	
Special Seminar	2	Spring				2			2	
Restricted Elective Courses total	26									

(III) Elective courses (Math)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Circuit Theory A	1	Fall (Q)		2				2		
Dynamics A	1	Spring (Q)			2			2		
Electromagnetism A	1	Fall (Q)		2				2		
Circuit Theory B	1	Winter (Q)		2				2		
Dynamics B	1	Summer (Q)			2			2		
Electromagnetism B	1	Winter (Q)		2				2		
Information Mathematics	2	Fall			2				2	
Fluid Mechanics A	1	Spring (Q)			2			2		
Fluid Mechanics B	1	Summer (Q)			2			2		
Quantum Mechanics	1	Summer (Q)			2			2		
Thermodynamics	1	Summer (Q)			2			2		
Advanced Analysis	2	Fall			2				2	
Advanced Topic in Modern Mathematical Sciences 1	1	Fall (Q)			2				2	
Quantum Chemistry	1	Fall (Q)			2				2	
Statistical Mechanics	1	Fall (Q)			2				2	
Advanced Topic in Modern Mathematical Sciences 2	1	Winter (Q)			2				2	
Algebra B1	2	Spring				2			2	
Geometry B1	2	Spring				2			2	
Functional Analysis B	2	Spring				2			2	
Advanced Numerical Analysis	2	Spring				2			2	
Stochastic Processes	2	Spring				2			2	
Applied Probability	2	Spring				2			2	
Applied Mathematics	2	Spring				2			2	
Mathematical Physics	2	Fall				2				2
Advanced Topic in Modern Mathematical Sciences 3	2	Spring (Q)				4			4	
Algebra B2	2	Fall				2				2
Geometry B2	2	Fall				2				2
Scientific Simulation	2	Fall				2				2
Advanced Statistics	2	Spring				2			2	
Advanced Topic in Modern Mathematical Sciences 4	2	Fall (Q)				4				4
Advanced Topic in Modern Mathematical Sciences 5	2	Winter (Q)				4				4
Elective Courses total	48									

(IV) Common courses for School of Fundamental Science and Engineering

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Strength of Materials A	1	Fall (Q)		2				2		
Strength of Materials B	1	Winter (Q)		2				2		
Thermodynamics A	1	Fall (Q)		2				2		
Thermodynamics B	1	Winter (Q)		2				2		
Information Design: Methods and Applications	2	Fall		2				2		
Engineering Materials A	1	Spring (Q)			2			2		
Engineering Materials B	1	Summer (Q)			2			2		
Applied Mechanics and Aerospace Engineering Laboratory A	1	Spring (Q)			4			4		
Applied Mechanics and Aerospace Engineering Laboratory B	1	Summer (Q)			4			4		
Control Engineering A	1	Fall (Q)			2				2	
Control Engineering B	1	Winter (Q)			2				2	
Introduction to Aerospace Engineering	1	Fall (Q)			2				2	
Airplane Flight Mechanics	1	Winter (Q)			2				2	
Introduction to Electronics	1	Winter (Q)			2				2	
Introduction to Photonics	1	Winter (Q)			2				2	
Introduction to Materials Science	1	Winter (Q)			2				2	
Physical Electronics Seminar A	1	Winter (Q)			2				2	
Physical Electronics Laboratory A	1	Winter (Q)			2				2	
Fundamentals of Visual Expression and Design	2	Spring			2			2		
Acoustic Systems	2	Fall			2				2	
Intermedia Art and Science Laboratory A	2	Fall			2				2	
Jet Engines	1	Spring (Q)				2			2	
Precision and Micro Engineering	1	Spring (Q)				2			2	
Physical Electronics Seminar B	1	Spring (Q)				2			2	
Physical Electronics Laboratory B	1	Spring (Q)				2			2	
Recording Technology	2	Spring				2			2	
Intermedia Art and Science Laboratory B	2	Spring				2			2	

* (Q) = Quarter Course

* int. = Intensive Course

- ◆ Students in the School of Fundamental Science and Engineering can register courses from the Common courses for School of Fundamental Science and Engineering above, although those credits **CANNOT be counted as Group C**. All of the credits of the courses above will be counted toward graduation as “*Additional Electives*” (see the Table III-5(3) in Section 5 Academic Term and Course Groups of Chapter III of this Handbook).

Major in Computer Science and Communications Engineering

The Major in Computer Science and Communications Engineering has been designed to equip students with advanced knowledge in an integrated field consisting of Computer Science and Computer and Communications Engineering. Computer Science concerns the theoretical fundamentals of computing, information, and communication, while Computer and Communications Engineering concerns the engineering applications of data and content processing and analysis on computers, communication devices, and computer network systems.

Computer Science and Computer and Communications Engineering consists of a range of fields that enable students to acquire general and advanced knowledge on hardware, software, and networks. This major features an international curriculum modeled in line with the IEEE/ACM Computing Curricula 2013, and is designed to enable students to master a wide variety of specialized fields, and develop the flexibility to work across disciplines.

In this program, we aim to maximize the individual potential of each student and thereby foster future engineers who will be able to contribute to the fields of Computer Science and Communications Engineering in a global context and in a variety of professions. Motivated students will be given the opportunity to take graduate-level courses; thus, providing them with opportunities to acquire cutting-edge knowledge. Furthermore, the major will prepare students to succeed in the rapidly changing and developing field of information and communications technology. This will be achieved by providing students with a diverse array of knowledge related to information and communication, by prioritizing a dialogue-based and problem-solving approach to education, and by providing a system in which students can proactively gain research experience.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
26	38	5

- If students have earned more than 38 credits in Group C restricted elective courses offered by the Major in Computer Science and Communications Engineering, the excess credits can be appropriated to Group C elective courses.

Graduation thesis/research commencement conditions

In order to be able to begin their final thesis, students must have:

- (1) Earned the credits required for graduation in Group A and Group B courses.
- (2) Taken the required Group C courses from the first and second year.

In addition to the above, we will also impose a lower limit on the credits that will be counted toward graduation, but specific details of this system will be announced in the guidance provided at the beginning of the third year.

List of courses for the Major in Computer Science and Communications Engineering

(I) Required courses (CSCE)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Fundamentals of Programming	2	Spring (Q)	4				4			
Topics from Computer Science and Communications Research	2	Spring (Q)		4			4			
Circuit Theory A	1	Fall (Q)		2				2		
Circuit Theory B	1	Winter (Q)		2				2		
Logic Circuits	2	Fall		2				2		
Computer Science and Communications Engineering Laboratory A	2	Fall		4				4		
Foundations of Statistics A	2	Spring			2			2		
Electronic Circuits A	1	Spring (Q)			2			2		
Electronic Circuits B	1	Summer (Q)			2			2		
Information Network Systems A	2	Fall			2				2	
Foundations of Statistics B	2	Fall			2				2	
Research Project Spring	4	Spring				⊙				⊙
Research Project Fall	4	Fall				⊙				⊙
Specialized required course total	26									

(II) Restricted elective courses (CSCE)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Algorithms and Data Structures	2	Spring		2				2		
Introduction to Computers and Networks	2	Spring		2			2			
Signal Processing	2	Fall		2				2		
Information Theory	2	Spring		2				2		
Discrete Mathematics	2	Fall		2				2		
Computer Architecture	2	Fall		2				2		
Artificial Intelligence	2	Fall		2					2	
Operating Systems	2	Spring			2				2	
Project Research	4	Spring			2				2	
Computer Science and Communications Engineering Laboratory B	2	Spring			2				2	
Computer Language Processors	2	Spring			2				2	
Digital Signal Processing	2	Spring			2				2	
Bioinformatics with ICT	2	Spring			2				2	
Wireless Communication	2	Spring			2				2	
Information Mathematics	2	Fall			2				2	
Software Engineering	2	Fall			2				2	
Programming Languages	2	Fall			2				2	
Databases	2	Fall			2				2	
Teletraffic Theory	2	Fall			2				2	
Information Network Systems B	2	Spring			2				2	
Multimedia Systems A	2	Fall			2				2	
Multimedia Systems B	2	Fall			2				2	
Specialized elective required course total	46									

(III) Elective courses (CSCE)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Electromagnetism A	1	Fall (Q)		2				2		
Electromagnetism B	1	Winter (Q)		2				2		
Electron Device	1	Spring (Q)			2			2		
Distributed Embedded and Real-Time Processing	2	Fall				2				2
Advanced Image Information	2	Spring				2				2
Reliable Software	2	Spring				2				2
Advanced Computer Architecture	2	Spring				2				2
Advanced Processor Architecture Technology	2	Spring				2				2
Wireless Signal Processing	2	Spring				2				2
Software Quality Assurance	2	Spring				2				2
Computer Vision and Pattern Analysis	2	Spring				2				2
Foundations for Information Access Evaluation	2	Spring				2				2
Advanced Wireless Access	2	Fall				2				2
Cloud Systems	2	Fall				2				2
Information Retrieval	2	Fall				2				2
Digital System Design	2	Winter (Q)				4				4
Advanced Intelligent Software	2	Fall				2				2
Image Processing	2	Spring				2				2
Analysis of Networked Systems	2	Fall				2				2
Specialized elective course total	35									

(IV) Common courses for School of Fundamental Science and Engineering

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Strength of Materials A	1	Fall (Q)		2				2		
Strength of Materials B	1	Winter (Q)		2				2		
Thermodynamics A	1	Fall (Q)		2				2		
Thermodynamics B	1	Winter (Q)		2				2		
Information Design: Methods and Applications	2	Fall		2				2		
Engineering Materials A	1	Spring (Q)			2			2		
Engineering Materials B	1	Summer (Q)			2			2		
Applied Mechanics and Aerospace Engineering Laboratory A	1	Spring (Q)			4			4		
Applied Mechanics and Aerospace Engineering Laboratory B	1	Summer (Q)			4			4		
Control Engineering A	1	Fall (Q)			2				2	
Control Engineering B	1	Winter (Q)			2				2	
Introduction to Aerospace Engineering	1	Fall (Q)			2				2	
Airplane Flight Mechanics	1	Winter (Q)			2				2	
Introduction to Electronics	1	Winter (Q)			2				2	
Introduction to Photonics	1	Winter (Q)			2				2	
Introduction to Materials Science	1	Winter (Q)			2				2	
Physical Electronics Seminar A	1	Winter (Q)			2				2	
Physical Electronics Laboratory A	1	Winter (Q)			2				2	
Fundamentals of Visual Expression and Design	2	Spring			2			2		
Acoustic Systems	2	Fall			2				2	
Intermedia Art and Science Laboratory A	2	Fall			2				2	
Jet Engines	1	Spring (Q)				2			2	
Precision and Micro Engineering	1	Spring (Q)				2			2	
Physical Electronics Seminar B	1	Spring (Q)				2			2	
Physical Electronics Laboratory B	1	Spring (Q)				2			2	
Recording Technology	2	Spring				2			2	
Intermedia Art and Science Laboratory B	2	Spring				2			2	

* (Q) = Quarter Course

* int. = Intensive Course

- ◆ Students in the School of Fundamental Science and Engineering can register courses from the Common courses for School of Fundamental Science and Engineering above, although those credits **CANNOT be counted as Group C**. All of the credits of the courses above will be counted toward graduation as “*Additional Electives*” (see the Table III-5(3) in Section 5 Academic Term and Course Groups of Chapter III of this Handbook).

Major in Mechanical Engineering

The world today faces a range of problems: global warming, a declining birthrate and an aging population, regional disparities in the provision of advanced medical services, decaying social infrastructure and the resulting decline in safety, and the frequent occurrence of large-scale natural disasters. This major aims to equip students with the skills to analyze these problems, uncover the underlying causes and estimate their repercussions. Leveraging the analytic skills and the manufacturing techniques learned in the major, the student will be able to devise original solutions to these problems and to engage in practical initiatives to create a more diverse future, full of possibilities.

Besides, mechanical engineering technology originally developed in Japan is now being adopted on a worldwide scale, and there are many fields in which Japan is leading the way. These include, most notably, automobile and manufacturing equipment production, and the heavy manufacturing and heavy electric machinery sectors; but also a host of other broader and multi-disciplinary sectors, such as the robotics sector, the medical equipment industry, and industries related to human-machine interfaces, to name but a few. For a genuine understanding of the essential elements underpinning this industrial development, it is important to provide not only technical classes in English but also a Japanese-language learning environment in which the student can appreciate the philosophy behind Japanese development processes and develop an experiential understanding of the core principles and theories at the base of mechanical engineering. It is believed that this learning approach will better equip students with the ability to perform effectively on the future world stage.

A further characteristic of this major is that it emphasizes the importance of acquiring a multifaceted understanding of the relationships between mechanical engineering and society, as well as the importance of independently investigating effective applications of mechanical engineering technology. In fact, lectures in this major will not only focus on mechanical engineering itself but also explore its connections with architectural engineering and administrative engineering.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
42	0	26

Graduation thesis/research conditions

Students may begin a graduation thesis on a research topic that explores not only mechanical engineering itself but also its connections with architectural engineering and administrative engineering. However, it should be noted that this program does not enable students to obtain UNESCO accreditation nor to qualify as a class-1 architect or a JABEE accredited architect. Students can begin a graduation thesis when they have completed all the required courses up to the third year and earned 122 credits or more. The student's laboratory may begin at a different time, depending on which area the student wishes to explore in their thesis.

Conditions for entering Laboratory/Research area

Students can apply for the specific laboratory of their preference to carry out the graduation thesis research work. Some laboratories require students to take mandatory Engineering Laboratory and Seminar A/B/C classes, held in the same laboratory.

Students must follow specific criteria when entering the laboratory or research area. These criteria are listed in additional documents and will be explained in detail during guidance.

Recommended courses / special instruction

As explained before, due to the important role that Japanese culture plays in the Japanese style world-leading manufacturing technology, this major features several courses delivered only in Japanese. With this in mind, students are recommended to select courses that align with their future aspirations, and that could provide a better understanding of the philosophy behind Japanese technological development processes.

However, it is important to note that students will still be able to graduate even if they only take English-language ME courses.

List of courses for the Major in Mechanical Engineering

(I) Required courses (ME)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Mechanical Engineering	2	Fall	2				2			
Statics, Kinematics and Dynamics of Mechanisms	2	Fall	2				2			
Field Informatics	2	Spring (Q)		4			4			
Material Mechanics Fundamentals	2	Fall		2				2		
Mechatronics	2	Fall		2				2		
Engineering Thermodynamics	2	Fall			4				4	
Fluid Dynamics Fundamentals	2	Fall		4				4		
Seminar A	2	Spring			2			2		
Engineering Practice A	2	Spring			4			4		
Seminar B	2	Fall			2				2	
Engineering Practice B	2	Fall			4				4	
Seminar C	2	Spring				2			2	
Engineering Practice C	2	Spring				4			4	
Graduation Thesis Spring	3	Spring				◎				◎
Graduation Thesis Fall	3	Fall				◎				◎
Required Courses total	32									

(II) Required courses (SHIP, common for CE and ME)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
SHIP Collaborative Workshop	2	Fall (Q)	4				4			
SHIP Research Planning and Skill A	2	Spring (Q)		4			4			
SHIP Field Practice A	2	Int.		Int.			Int.			
SHIP Research Planning and Skill B	2	Winter (Q)		4				4		
SHIP Field Practice B	2	Int.		Int.				Int.		
Common Required courses total	10									

(III) Elective courses (ME)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Modeling and Analysis of Dynamic Systems	2	Spring		2				2		
Mechatronics Laboratory Fundamentals	2	Spring		4				4		
Environmental Science Fundamentals	2	Fall		2				2		
Control Systems	2	Fall		2				2		
Smart Building Science and Engineering	2	Fall		2				2		
Advanced Topics in Intellectual Property Rights, Technology and Legal Affairs	2	Fall		2				2		
Mechatronics Laboratory Advanced	2	Fall		4					4	
Mechanical Design and Machining	2	Spring			2			2		
Material Mechanics Advanced	2	Spring			2			2		
Fundamentals of Robotics	2	Spring			2			2		
Mechanical Engineering Frontiers A	2	Spring			2			2		
Mechanical Engineering Frontiers B	2	Spring			2			2		
Co-Habitable Design and Planning	2	Spring			2			2		
Astroparticle Physics	2	Int.			Int.			Int.		
Lunar and Planetary Exploration and its Science	2	Int.			Int.			Int.		
Manufacturing of Space Structures	2	Spring			2				2	
Mechanical Engineering Frontiers C	2	Fall			2				2	
Mechanical Engineering Frontiers D	2	Winter (Q)			4				4	
Environmental Infrastructure and Social Business	2	Fall			2				2	
Biomechatronics	2	Fall			2				2	
Bioengineering	2	Fall			2				2	
Micro/Nano Machine	2	Fall			2				2	
Community-Based Collaborative Design and Development	2	Fall			2				2	
Design and Control of Space Structures	2	Int.			Int.				Int.	
Design Optimization of Space Structures	2	Int.			Int.				Int.	
Thermal Design of Space System	2	Fall			2				2	
Materials Science and Engineering for Space Craft	2	Spring				2				2
Mechanical Engineering Frontiers E	2	Spring				2			2	
Mechanical Engineering Frontiers F	2	Spring				2			2	
Elective Courses total	58									

(IV) Elective courses conducted in Japanese

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Method Engineering Workshop	2	Spring		4			4			
Materials Fundamentals	2	Fall		2				2		
Intelligent Manufacturing Systems	2	Fall		2					2	
Mechanical Drawing and Design Fundamentals	2	Fall		8					8	
Thermal Energy Engineering	2	Spring			2			2		
Internal Combustion Engine	2	Spring			2			2		
Mechanical Properties of Materials	2	Spring			2			2		
Industrial Materials	2	Spring			2			2		
Co-creative Machine Engineering	2	Spring			2			2		
Mechanical Engineering Analysis Fundamentals	2	Spring			2			2		
Applied Systems Thinking	2	Spring			2				2	
Operations Research B	2	Spring			2				2	
Intelligence Information Processing	2	Spring			2				2	
Data Science and Machine Learning	2	Spring			2				2	
Facility / Logistics Design	2	Spring			2				2	
Design of Space Structures	2	Spring			2				2	
Mechanical Engineering Laboratory Fundamentals	2	Spring			4			4		
Mechanical Drawing and Design Advanced	2	Spring			8				8	
Thermal Energy Reaction Engineering	2	Fall			2				2	
Control and Design of Space Structures	2	Fall			2				2	
Space Science and Technology	2	Fall			2				2	
Human Factors in Safety	2	Fall			2				2	
Materials Processing	2	Int.			Int.				Int.	
Engine Design Engineering	2	Fall			2				2	
Mechanical Engineering Laboratory Advanced	2	Fall			4				4	
Theory of Urban Environment	2	Fall			2				2	
Quality Management	2	Fall			2				2	
Production Management Fundamentals	1	Fall (Q)			2				2	
Marketing Data Analysis	2	Fall			2				2	
Software Engineering	2	Fall			2					2
Transport Phenomena	2	Fall			2					2
Introduction to Nuclear Power Generation	2	Spring				2			2	
Automotive Engineering	2	Spring				2			2	
Production Technology of Structural Materials	2	Int.				Int.			Int.	
Exercises in Architectural Design(F)	2	Spring				4				4
Frontiers of Energy Resource and Petroleum Technology	2	Fall				2				2
Thermal Power Plant	2	Fall				2				2
Introduction to Environmental Management	2	Fall				2				2
Elective courses conducted by Japanese total	75									

* (Q) = Quarter Course

* int. = Intensive Course

Note: Courses in the above table are taught mostly in Japanese.

To take them, students will need to have the same command of Japanese as a native speaker of the language.

Major in Civil and Environmental Engineering

Civil and Environmental Engineering will be taught in English. Covering the fundamentals of civil engineering including structural engineering, hydraulic engineering, geotechnical engineering and transportation engineering, this major will explore themes such as environmental approaches to construction, safety in human society, and environmental preservation from an engineering perspective. Civil and Environmental Engineering plays a critical role in applying engineering ethics, in contributing to the sustainable development of the social infrastructure required for humans to lead safe and culturally-enriched lives, and in implementing policies designed to enable humans to live in harmony with the natural environment.

Civil and Environmental Engineering consists of courses in social infrastructure construction, environment and disaster-prevention, and planning and management.

In social infrastructure, students will focus on the skills necessary for constructing social infrastructure facilities and utilizing, monitoring, and maintaining said facilities. Examples of such facilities include transportation facilities (such as road and rail networks, marine ports, and airports), urban facilities (such as waterworks and sewage lines), energy plants (such as power plants and oil stockpiling bases), and disaster-prevention facilities, which protect people from the effects of natural disasters. The construction materials used in this major will primarily comprise steel, concrete, and new materials.

In environment and disaster-prevention, students will focus on environment and disaster-prevention in the hydrosphere and geosphere. In terms of the hydrosphere, students will explore water issues in urban river systems and urban flooding, issues in aqueous environments (such as eutrophication in the hydrosphere and how to reverse its effects), and other issues such as tsunamis and storm surge damage in coastal areas (such as shores and inlets), as well as the utilization of coastal zones. In terms of the geosphere, students will explore the liquefaction of sand deposits during earthquakes, the resulting damage to buildings, and the engineering methods that are used to tackle this phenomenon. They will also explore the fundamental physical properties of soil and processes of underground construction.

In planning and management, students will focus on the following themes: city and community scales and their spatial composition/distribution; urban areas and urban infrastructure; urban mobility and transport systems; urban landscapes and spatial design; the history of civil engineering; surveys on urban disaster-prevention; and planning/design techniques, ranging from planning to design and project management.

This major's educational program will be managed in collaboration with the Department of Resources and Environmental Engineering and the Department of Architecture.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
53	0	20

Graduation thesis/research commencement conditions

To register for Graduation Thesis or Project Spring and Fall, students must have the following credits:

- Group A courses: Must have earned the number of credits required for graduation.
- Group B courses: Must have earned 22 credits or more.
- Group C courses: Must have earned credits in all Laboratory / Practice courses in the first, second, and third years as required (however, those marked with an S will be determined separately).
- The total number of credits earned must be 110 or more.

Recommended courses / special instruction

- 1) Students who select an academic advisor from the Department of Civil and Environmental Engineering to supervise their Graduation Thesis in the fourth year will graduate from the Department of Civil and Environmental Engineering. There are no additional conditions concerning the selection of elective courses.
- 2) Students who select an academic advisor from the Department of Resources and Environmental Engineering to supervise their Graduation Thesis in the fourth year should earn credits in the Group C courses, as specified by the Department of Resources and Environmental Engineering, and in the Group C courses, as specified by their advisors. Those who undertake a Graduation Thesis in the Department of Resources and Environmental Engineering will graduate from the Department of Resources and Environmental Engineering. Students will be briefed on course choices when they enrol by the instructor from the Department of Resources and Environmental Engineering.
- 3) Students who select an academic advisor from the Department of Architecture to supervise their Graduation Thesis in the fourth year should earn credits in Group C courses, as specified by the Department of Architecture instructors. Even if students undertake their thesis under the guidance of a Department of Architecture professor, they will graduate from the Department of Civil and Environmental Engineering. Students will be briefed on course choices when they enrol by the instructor from the Department of Architecture.

List of courses for the Major in Civil and Environmental Engineering

(I) Required courses (CE)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Surveying	2	Spring	2				2			
Surveying Practice	1	Spring	4				4			
Laboratory Work on Civil and Environmental Engineering	1	Spring	4				4			
Introduction to Civil and Environmental Engineering	2	Fall	2				2			
Spatial Information and Intelligent System	2	Fall	2					2		
Spatial Information Practice	1	Fall	4					4		
Structural Mechanics	2	Spring (Q)		4			4			
Materials and Structures A	2	Fall		2				2		
Soil Mechanics	2	Fall		2				2		
Hydraulics A	2	Fall		2				2		
Environmental Engineering	2	Fall		2				2		
Fundamentals of Urban Studies and Planning A	2	Fall		2				2		
Applied Mathematics for Civil and Environmental Engineers	2	Fall		2				2		
Materials and Structures B	2	Spring			2			2		
Geotechnical Engineering	2	Spring			2			2		
Hydraulics B	2	Spring			2			2		
Fundamentals of Urban Studies and Planning B	2	Spring			2			2		
Laboratory Work on Concrete	1	Spring			4				4	
Laboratory Work on Hydraulics and Water Quality	1	Spring			4				4	
Concrete Engineering	2	Fall			2				2	
Laboratory Work on Structures	1	Fall			4				4	
Laboratory Work on Soil Mechanics	1	Fall			4				4	
Graduation Thesis or Project Spring	3	Spring				⊙				⊙
Graduation Thesis or Project Fall	3	Fall				⊙				⊙
Required Courses total	43									

(II) Required courses (SHIP, common for CE and ME)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
SHIP Collaborative Workshop	2	Fall (Q)	4				4			
SHIP Research Planning and Skill A	2	Spring (Q)		4			4			
SHIP Field Practice A	2	Int.		Int.			Int.			
SHIP Research Planning and Skill B	2	Winter (Q)		4				4		
SHIP Field Practice B	2	Int.		Int.				Int.		
Common Required courses total	10									

(III) Elective courses (CE)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Applied Geophysics	2	Spring		2			2			
Introduction to Earth and Environmental Engineering	2	Spring		2			2			
Environmental Instrumental Analysis	2	Spring		2			2			
Laboratory Work on Basic Inorganic and Analytical Chemistry	2	Full Year		4				4		
Introduction to Petroleum Engineering	2	Fall		2				2		
Introduction to Resources Recycling Engineering	2	Fall		2				2		
Civil Engineering, Management and Sustainability	2	Spring		2				2		
Structure Design Practice	1	Spring			2			2		
Water Quality Engineering	2	Spring			2			2		
Introduction to Reservoir Simulation	2	Spring			2			2		
Rock Mechanics	2	Spring			2			2		
Resources Separation and Refining	2	Spring			2			2		
Fundamentals of Aquatic Chemistry	2	Spring			2			2		
Laboratory Work on Resources and Environmental Engineering A	1	Spring			4			4		
Advanced Earth and Environmental Engineering 1	1	Spring (Q)			2			2		
Advanced Earth and Environmental Engineering 2	1	Summer (Q)			2			2		
Coastal and Port Engineering	1	Fall (Q)			2				2	
Steel Material and Structure	2	Spring			2				2	
Numerical Rock Mechanics	2	Fall			2				2	
Resources Processing Engineering	2	Fall			2				2	
Laboratory Work on Resources and Environmental Engineering B	1	Fall			4				4	
Advanced Topics in Architectural Design and Engineering B	2	Fall				2				2
Advanced Earth and Environmental Engineering 3	1	Fall (Q)			2				2	
Bridge Engineering	2	Spring				2			2	
Computer Aided Design (CAD)	2	Spring				2			2	
Environmental Geotechnics	2	Spring				2			2	
International Development and Planning	2	Spring				2			2	
Advanced Topics in Architectural Design and Engineering A	2	Spring				2			2	
Energy Geotechnics	1	Int.				Int.				Int.
Elective Courses	50									

* (Q) = Quarter Course

* int. = Intensive Course

Major in Physics

The Major in Physics will provide students with a solid grounding in physics, which they will require after graduation when pursuing wide-ranging research into fundamental and applied physics. This could include discovering as-yet-unknown phenomena in physics, engaging with the challenge of breaking new ground in the discipline, or developing new technologies based on the principles of physics. Students will first study the fundamentals of physics in a systematic manner, and then broaden their awareness and understanding to encompass cutting-edge fields. Instructors for the Major in Physics will be actively pursuing cutting-edge research in fields such as nuclear, particle, and radiation physics, astrophysics, mathematical physics, solid-state physics, biophysics, and information and physical engineering.

In terms of courses, students may take a range of courses, from the most fundamental theoretical fields to the latest applications in engineering, according to their own interests and aspirations. For their final research project, students will engage in cutting-edge research in a laboratory, corresponding to any one of the fields listed above, and will thus master the logical thinking skills that underpin the study of physics, as well as developing problem-solving skills.

The aim of the Major in Physics is to equip students with broadened perspectives and to ensure that they can think freely and creatively without being bound by preconceived notions.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
27	26	8

- If students have earned more than 26 credits in Group C restricted elective courses offered by the Major in Physics, the excess credits can be appropriated to Group C elective courses.

Graduation thesis/research commencement conditions

Students must have:

- Earned at least 105 credits in courses other than Group D courses or non-degree courses.
- Earned at least 34 credits in required and restricted elective courses in Group C.
- Completed all required courses in Group C other than Statistical Mechanics, Graduation Thesis Spring, and Graduation Thesis Fall.

Recommended courses / special instruction

The particular field/laboratory in which the student undertakes his/her final research project will have its own recommended courses. Students should confirm the recommended courses available during the guidance session (held during the enrollment period and at the beginning of each year) and thus select their courses strategically.

List of courses for the Major in Physics

(I) Required courses (Phys.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Laboratory for Advanced Science and Engineering A	2	Spring (Q)		8			8			
Laboratory for Advanced Science and Engineering B	1	Summer (Q)		8			8			
Current Topics in Physics	2	Fall		2				2		
Intermediate Mechanics	2	Fall		2				2		
Intermediate Electromagnetism	2	Fall		2				2		
Mathematical Methods for Physics A	2	Fall		2				2		
Quantum Mechanics A	2	Spring			2			2		
Thermal Physics	2	Spring			2			2		
Mathematical Methods for Physics B	2	Spring			2			2		
Statistical Mechanics	2	Fall			2				2	
Graduation Thesis Spring	4	Spring				⊙				⊙
Graduation Thesis Fall	4	Fall				⊙				⊙
Required Courses total	27									

(II) Restricted elective courses (Phys.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Research Ethics and Intellectual Property	2	Fall			2				2	
Seminar on Problem Solving	3	Fall			3				3	
Diversity and Multiculturalism in Research	2	Fall			2				2	
Research Design and Analysis	2	Fall			2				2	
Problem Solving in Fundamental Physics A	2	Spring (Q)		4			4			
Problem Solving in Fundamental Physics B	2	Fall		2				2		
Solid State Physics A	2	Spring			2			2		
Advanced Electromagnetism	2	Spring			2			2		
Engineering Physics A	2	Spring			2			2		
Relativity	2	Spring			2			2		
Fluid Mechanics	2	Spring			2			2		
Biological Physics	2	Spring			2			2		
Physics Laboratory	3	Fall			6				6	
Quantum Mechanics B	2	Fall			2				2	
Physical Chemistry Laboratory	3	Fall			6				6	
Engineering Physics B	2	Fall			2				2	
Solid State Physics B	2	Spring				2			2	
Restricted Elective Courses total	37									

(III) Elective courses (Phys.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Computational Physics	2	Int.		Int.				Int.		
Electromagnetism for Electronics and Electrical Engineering	2	Spring		2				2		
Technical English for Scientific Research A	2	Fall			2				2	
Technical English for Scientific Research B	2	Fall			2				2	
Field work in Research Institutions and Industry	2	Int.			Int.				Int.	
Advanced Electrical Engineering	2	Spring			2			2		
Frontiers of Device Engineering	2	Int.			Int.			Int.		
Power Systems Engineering	2	Spring			2			2		
Control Systems	2	Spring			2			2		
Physics of Semiconductor Devices 1	2	Fall			2				2	
Advanced Electric Power Devices and Machines	2	Fall			2				2	
Smart Grid and Frontiers in Electric Energy Systems	2	Fall			2				2	
Power System and Nuclear Power Generation Theory	2	Fall			2				2	
Scientific Research	4	Spring				4			4	
Physics of Semiconductor Devices 2	2	Spring				2			2	
Thin Film Engineering	2	Spring				2			2	
Elective Courses total	34									

* (Q) = Quarter Course

* int. = Intensive Course

Major in Chemistry

Chemistry is a field of science that involves the study of syntheses, reactions, and functions of substances and materials from the atomic and molecular viewpoints. The major challenge for chemistry education in the twenty-first century is to provide students with the experimental and theoretical foundations for developing new substances, materials, and technologies that are not just useful to human life but also support sustainability from an environmental perspective. Studying chemistry as a major will spur individuals to become chemistry-minded scientists or engineers who can challenge and tackle these issues with deep insight to develop and innovate highly functional materials and chemical processes in the near future. In addition, students are expected to engage in interdisciplinary research activities in advanced fields such as materials, biomedical, and environmental science and technology.

The undergraduate curriculum provides students with a solid background in the major areas of chemistry and chemical engineering (e.g., inorganic chemistry, organic chemistry, physical chemistry, biochemistry, and analytical chemistry). Thus, the commencement of the Major in Chemistry opens an avenue for expanding their research in graduate courses as well as for entering various professions including environmental science, biotechnology, nanotechnology, and chemical engineering.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
32	26	4

- If students have earned more than 26 credits in Group C restricted elective courses offered by the Major in Chemistry, the excess credits can be appropriated to Group C elective courses.

Graduation thesis/research commencement conditions

For April enrollees:

To register for Graduation Thesis Spring and Graduation Thesis Fall: students must have earned:

- 20 or more credits from courses in Group A.
- 31 or more credits from courses in Group B.
- 18 or more credits from restricted elective courses in Group C.
- 3 credits to complete laboratory Group B3 required courses: Science and Engineering Laboratory.
- 6 credits to complete three Group C required courses: Current Topics in Chemistry, Inorganic Chemistry A, and Organic Chemistry A.
- 14 credits to complete six laboratory Group C courses offered by Major in Chemistry: Laboratory for Advanced Science and Engineering A, B, Chemistry and Bioscience Laboratory, Inorganic and Analytical Chemistry Laboratory, Physical Chemistry Laboratory, and Organic Chemistry Laboratory.
- at least 116 credits in total.

For September enrollees:

To register for Graduation Thesis Spring and Graduation Thesis Fall, students must have earned:

- 16 or more credits from courses in Group A.
- 31 or more credits from courses in Group B.
- 18 or more credits from restricted elective courses in Group C.
- 3 credits to complete laboratory Group B3 required courses: Science and Engineering Laboratory.
- 6 credits to complete three Group C required courses: Current Topics in Chemistry, Inorganic Chemistry A, and Organic Chemistry A.
- 14 credits to complete six laboratory Group C courses offered by Major in Chemistry: Laboratory for Advanced Science and Engineering A, B, Chemistry and Bioscience Laboratory, Inorganic and Analytical Chemistry Laboratory, Physical Chemistry Laboratory, and Organic Chemistry Laboratory.
- at least 116 credits in total.

Recommended courses / special instruction

Green Materials Science, Introduction to Applied Chemistry, Introduction to Industrial Chemistry, Biochemistry, Inorganic Chemistry B, Organic Chemistry B, Fundamentals of Chemical Engineering, Physical Chemistry B, Chemical Biology, Fundamentals of Materials Chemistry, Quantum Chemistry, and Industrial Chemistry

List of courses for the Major in Chemistry

(I) Required courses (Chem.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Laboratory for Advanced Science and Engineering A	2	Spring (Q)		8			8			
Laboratory for Advanced Science and Engineering B	1	Summer (Q)		8			8			
Current Topics in Chemistry	2	Spring (Q)		4			4			
Inorganic Chemistry A	2	Fall		2				2		
Organic Chemistry A	2	Fall		2				2		
Chemistry and Bioscience Laboratory	2	Fall (Q)		8				8		
Physical Chemistry A	2	Spring			2			2		
Analytical Chemistry	2	Fall			2				2	
Inorganic and Analytical Chemistry Laboratory	3	Spring			6			6		
Physical Chemistry Laboratory	3	Fall			6				6	
Organic Chemistry Laboratory	3	Fall			6				6	
Graduation Thesis Spring	4	Spring				⊙				⊙
Graduation Thesis Fall	4	Fall				⊙				⊙
Required Courses total	32									

(II) Restricted elective courses (Chem.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Research Ethics and Intellectual Property	2	Fall			2				2	
Seminar on Problem Solving	3	Fall			3				3	
Diversity and Multiculturalism in Research	2	Fall			2				2	
Research Design and Analysis	2	Fall			2				2	
Green Materials Science	2	Fall		2				2		
Introduction to Applied Chemistry	2	Fall		2				2		
Fundamentals of Chemical Engineering	2	Fall		2				2		
Physical Chemistry B	2	Fall			2				2	
Chemical Biology	2	Spring			2			2		
Fundamentals of Materials Chemistry	2	Fall			2				2	
Quantum Chemistry	2	Fall			2				2	
Introduction to Industrial Chemistry	2	Spring			2			2		
Biochemistry	2	Spring			2			2		
Inorganic Chemistry B	2	Spring			2			2		
Organic Chemistry B	2	Spring			2			2		
Industrial Chemistry	2	Spring				2			2	
Restricted Elective courses total	33									

(III) Elective courses (Chem.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Computational Physics	2	Int.		Int.				Int.		
Electromagnetism for Electronics and Electrical Engineering	2	Spring		2				2		
Technical English for Scientific Research A	2	Fall			2				2	
Technical English for Scientific Research B	2	Fall			2				2	
Field work in Research Institutions and Industry	2	Int.			Int.				Int.	
Advanced Electrical Engineering	2	Spring			2			2		
Frontiers of Device Engineering	2	Int.			Int.			Int.		
Power Systems Engineering	2	Spring			2			2		
Control Systems	2	Spring			2			2		
Physics of Semiconductor Devices 1	2	Fall			2				2	
Advanced Electric Power Devices and Machines	2	Fall			2				2	
Smart Grid and Frontiers in Electric Energy Systems	2	Fall			2				2	
Power System and Nuclear Power Generation Theory	2	Fall			2				2	
Scientific Research	4	Spring				4			4	
Physics of Semiconductor Devices 2	2	Spring				2			2	
Thin Film Engineering	2	Spring				2			2	
Elective Courses total	34									

* (Q) = Quarter Course

* int. = Intensive Course

Major in Bioscience

It is no exaggeration to say that the twenty-first century is quickly becoming a century of life sciences and medical biosciences. Positioning molecular biology and biotechnology at the heart of its technology disciplines, the Bioscience Major aims to explore the principles behind vital phenomena that are not yet fully understood, to elucidate various pathologies, and to develop new resources and technologies that will contribute to medical practice. In order to pursue such cutting-edge science, it is necessary to forge new research areas that integrate various foundational fields such as physics, chemistry, biology, medicine, engineering, and information science. Therefore, the first characteristic of this major's curriculum is the provision of a solid grounding in the fundamentals of all these disciplines. Having covered the fundamentals, students will then take Group C courses in their second and third years. The prime focus here will be on the required course Molecular Cell Biology A/B, but students will also take required elective courses covering a range of disciplines.

Another characteristic of this major is the focus on practical study. There will be mandatory laboratory sessions, not only among the foundational courses of Group B, but also among the Group C courses. Specifically, these laboratory courses will include Laboratory for Advanced Science and Engineering A/B and Chemistry and Bioscience Laboratory, which will cover experimental techniques across the full spectrum of physical, chemical, and biological sciences. In Fundamental Bioscience Laboratory and Advanced Bioscience Laboratory, students will master the fundamentals related to the research they will later pursue as part of their final research project (graduation thesis), including bioscience experimental techniques and research perspectives and strategies.

Required Group C Courses

Number of Minimum Credits		
Required Courses	Restricted Elective Courses	Elective Courses
33	28	6

- If students have earned more than 28 credits in Group C restricted elective courses offered by the Major in Bioscience, the excess credits can be appropriated to Group C elective courses.

Graduation thesis/research commencement conditions

In the Bioscience Major curriculum, students will be assigned to the laboratory of an instructor affiliated with this major once they complete the third year autumn semester. Students will only be permitted to commence their research project in the assigned laboratory if they have earned the majority of the credits up to that point. The specific criteria will be provided during the guidance session at the beginning of the year.

List of courses for the Major in Bioscience

(I) Required courses (Bio.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Current Topics in Biosciences	2	Fall	2				2			
Laboratory for Advanced Science and Engineering A	2	Spring (Q)		8			8			
Laboratory for Advanced Science and Engineering B	1	Summer (Q)		8			8			
Chemistry and Bioscience Laboratory	2	Fall (Q)		8				8		
Molecular Cell Biology A	2	Fall		2				2		
Fundamental Bioscience Laboratory	6	Spring			12			12		
Molecular Cell Biology B	2	Spring			2			2		
Advanced Bioscience Seminar	2	Fall			2				2	
Advanced Bioscience Laboratory	6	Fall			12				12	
Graduation Thesis Spring	4	Spring				⊙				⊙
Graduation Thesis Fall	4	Fall				⊙				⊙
Required Courses total	33									

(II) Restricted elective courses (Bio.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Research Ethics and Intellectual Property	2	Fall			2				2	
Seminar on Problem Solving	3	Fall			3				3	
Diversity and Multiculturalism in Research	2	Fall			2				2	
Research Design and Analysis	2	Fall			2				2	
Anatomy and Histology	2	Spring		2				2		
Organic Chemistry A	2	Fall		2					2	
Bioscience and Biotechnology for Life Science	2	Int.		Int.				Int.		
Organic Chemistry B	2	Spring			2				2	
Analytical Chemistry	2	Fall		2				2		
Neuroscience	2	Spring			2			2		
Chemical Biology	2	Spring			2			2		
Biological Physics	2	Spring			2			2		
Microbiology	2	Spring		2				2		
Introduction to Medical Science	2	Int.			Int.				Int.	
Developmental Biology and Genetics	2	Spring			2				2	
Pharmacology	1	Fall (Q)			2				2	
Immunology	1	Winter (Q)			2				2	
Restricted Elective courses total	33									

(III) Elective courses (Bio.)

Course Name	Credits	Term	Number of hours per week							
			For APRIL enrollees				For SEPTEMBER enrollees			
			1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
Introduction to Computational Physics	2	Int.		Int.				Int.		
Electromagnetism for Electronics and Electrical Engineering	2	Spring		2				2		
Technical English for Scientific Research A	2	Fall			2				2	
Technical English for Scientific Research B	2	Fall			2				2	
Field work in Research Institutions and Industry	2	Int.			Int.				Int.	
Advanced Electrical Engineering	2	Spring			2			2		
Frontiers of Device Engineering	2	Int.			Int.			Int.		
Power Systems Engineering	2	Spring			2			2		
Control Systems	2	Spring			2			2		
Physics of Semiconductor Devices 1	2	Fall			2				2	
Advanced Electric Power Devices and Machines	2	Fall			2				2	
Smart Grid and Frontiers in Electric Energy Systems	2	Fall			2				2	
Power System and Nuclear Power Generation Theory	2	Fall			2				2	
Scientific Research*	4	Spring				4			4	
Physics of Semiconductor Devices 2	2	Spring				2			2	
Thin Film Engineering	2	Spring				2			2	
Elective Courses total	34									

* (Q) = Quarter Course

* int. = Intensive Course

* "Scientific Research" is not recommended for April enrollees as this course is related to the laboratory assignment for September enrollees.

10 Requirements for each Minor and List of Courses in the Minor (Group C Courses)

Minor in Mathematical Sciences

The mathematical sciences are closely interconnected with various fields across scientific study and constitute a foundational discipline in science and engineering as a whole. Mastery of computational mathematics (such as numerical analysis) is essential for analyzing complex natural and social phenomena, while a mastery of statistics is essential for interpreting vast amounts of data. In addition, analysis is deployed when handling differential equations in the modelling of phenomena in science and engineering. These mathematical sciences are developed in an interconnected manner and can also be applied in general scientific research.

The Minor in Mathematical Sciences consists of foundational courses and applied courses. Students do not focus solely on mathematics as the common language in science; they also take a balanced range of mathematical science courses, which are necessary in order to elucidate natural and social phenomena. By taking foundational courses in analysis, algebra, and geometry, students will hone their logical thinking ability, whilst taking advanced and applied mathematics courses will develop their ability to identify phenomena from a mathematical-science perspective. This will stand them in good stead for their study of various areas related to mathematical science.

Principal disciplines: Analysis, algebra, geometry, statistics, computational mathematics

To be granted the Minor in Mathematical Sciences, 12 credits must be earned from the designated courses in the table below. How credits earned from those courses should be counted toward graduation will depend on the student's major.

List of courses for the Minor in Mathematical Sciences

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
FSE	Math	Foundations of Set Theory	2	Spring (Q)		4			4			
FSE	Math	Foundations of Algebra A	2	Fall		2				2		
FSE	Math	Foundations of Algebra B	2	Fall		2				2		
FSE	Math	Foundations of Analysis 1	2	Fall		2				2		
FSE	Math	Foundations of Geometry	2	Fall		2				2		
FSE	Math	Exercises in Geometry	2	Fall		2				2		
FSE	Math	Foundations of Analysis 2	2	Spring			2			2		
FSE	Math	Foundations of Statistics A	2	Spring			2			2		
FSE	Math	Foundations of Numerical Analysis	2	Spring			2			2		
FSE	Math	Exercises in Numerical Analysis	2	Spring			2			2		
FSE	Math	Foundations of Statistics B	2	Fall			2				2	
FSE	Math	Foundations of Analysis 3	2	Fall		2				2		
FSE	Math	Algebra A	2	Spring			2			2		
FSE	Math	Geometry A	2	Spring			2			2		
FSE	Math	Measure Theory	2	Spring			2			2		
FSE	Math	Differential Equations A	2	Spring			2			2		
FSE	Math	Functional Analysis A	2	Spring			2			2		
FSE	Math	Applied Statistics	2	Fall			2				2	
FSE	Math	Time Series Analysis	2	Fall			2				2	
FSE	Math	Mathematical Statistics	2	Fall			2				2	
FSE	Math	Numerical Analysis and Simulation	2	Fall			2				2	

Minor in Computer Science and Communications Engineering

The Minor in Computer Science and Communications Engineering was established to equip students with foundational knowledge in an integrated field combining Computer Science and Computer and Communications engineering. Computer Science concerns the theoretical fundamentals of computing, information, and communications, while Computer and Communications Engineering concerns the engineering applications of data and content processing and analysis on computers, communication devices, and computer network systems.

Computer Science and Computer and Communications Engineering will comprise a range of fields that enable students to acquire general and advanced knowledge on hardware, software, and networks. The curriculum has been designed in such a way that students on this minor can master a wide range of foundational knowledge related to these fields. The minor will enable students to utilize the knowledge they have acquired on this course, thus equipping them with the basic ability to respond to rapid developments in information and communications technology.

To be granted the Minor in Computer Science and Communications Engineering, 12 credits must be earned from the designated courses in the table below. How credits earned from those courses should be counted toward graduation will depend on the student's major.

List of courses for the Minor in Computer Science and Communication Engineering

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
FSE	Math	Information Mathematics	2	Fall			2				2	
FSE	Math	Information Theory	2	Spring		2				2		
FSE	CSCE	Logic Circuits	2	Fall		2				2		
FSE	CSCE	Information Network Systems A	2	Fall			2				2	
FSE	CSCE	Algorithms and Data Structures	2	Spring		2				2		
FSE	CSCE	Introduction to Computers and Networks	2	Spring		2			2			
FSE	CSCE	Signal Processing	2	Fall		2				2		
FSE	CSCE	Information Theory	2	Spring		2				2		
FSE	CSCE	Discrete Mathematics	2	Fall		2				2		
FSE	CSCE	Computer Architecture	2	Fall		2				2		
FSE	CSCE	Artificial Intelligence	2	Fall		2					2	
FSE	CSCE	Operating Systems	2	Spring			2				2	
FSE	CSCE	Project Research	4	Spring			2				2	
FSE	CSCE	Computer Language Processors	2	Spring			2				2	
FSE	CSCE	Digital Signal Processing	2	Spring			2				2	
FSE	CSCE	Bioinformatics with ICT	2	Spring			2				2	
FSE	CSCE	Wireless Communication	2	Spring			2				2	
FSE	CSCE	Information Mathematics	2	Fall			2				2	
FSE	CSCE	Software Engineering	2	Fall			2				2	
FSE	CSCE	Programming Languages	2	Fall			2				2	
FSE	CSCE	Databases	2	Fall			2				2	
FSE	CSCE	Teletraffic Theory	2	Fall			2				2	
FSE	CSCE	Information Network Systems B	2	Spring			2				2	
FSE	CSCE	Multimedia Systems A	2	Fall			2				2	
FSE	CSCE	Multimedia Systems B	2	Fall			2				2	

* int. = Intensive Course

Minor in Applied Mechanics and Aerospace Engineering

Society currently faces considerable global-environmental and energy production and use problems. Against this backdrop, it is essential to have a systematic understanding of a broad range of scientific and technological knowledge related to the environment, energy, information, life, and safety. It is equally essential to apply such knowledge proactively, in order to further refine science and technology and to generate technological innovation. The Applied Mechanics and Aerospace Engineering Minor is designed in such a way that students can gain a wide range of foundational knowledge of mechanical engineering (a fusion of natural sciences and engineering) and also master the ability to identify and solve problems through the proactive use of such knowledge. In this way, the minor will foster future engineers and globally-oriented members of society who can pursue cutting-edge research and technological innovation in the general area of science and technology, as represented by the various mechanical engineering fields and aerospace engineering. In this way, they can contribute to the creation of new scientific values and a technological revolution.

To be granted the Minor in Applied Mechanics and Aerospace Engineering, 12 credits must be earned from the designated courses in the table below. How credits earned from those courses should be counted toward graduation will depend on the student's major.

List of courses for the Minor in Applied Mechanics and Aerospace Engineering

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
FSE	Common	Strength of Materials A	1	Fall (Q)		2				2		
FSE	Common	Strength of Materials B	1	Winter (Q)		2				2		
FSE	Common	Thermodynamics A	1	Fall (Q)		2				2		
FSE	Common	Thermodynamics B	1	Winter (Q)		2				2		
FSE	Common	Engineering Materials A	1	Spring (Q)			2			2		
FSE	Common	Engineering Materials B	1	Summer (Q)			2			2		
FSE	Common	Applied Mechanics and Aerospace Engineering Laboratory A	1	Spring (Q)			4			4		
FSE	Common	Applied Mechanics and Aerospace Engineering Laboratory B	1	Summer (Q)			4			4		
FSE	Common	Control Engineering A	1	Fall (Q)			2				2	
FSE	Common	Control Engineering B	1	Winter (Q)			2				2	
FSE	Common	Introduction to Aerospace Engineering	1	Fall (Q)			2				2	
FSE	Common	Airplane Flight Mechanics	1	Winter (Q)			2				2	
FSE	Common	Jet Engines	1	Spring (Q)				2			2	
FSE	Common	Precision and Micro Engineering	1	Spring (Q)				2			2	
FSE	Math	Dynamics A	1	Spring (Q)			2			2		
FSE	Math	Dynamics B	1	Summer (Q)			2			2		
FSE	Math	Fluid Mechanics A	1	Spring (Q)			2			2		
FSE	Math	Fluid Mechanics B	1	Summer (Q)			2			2		

Minor in Physical Electronics

The aim of the Minor in Physical Electronics is to provide systematic instruction in the four components of physical electronics: basic solid-state physics, electronics, photonics, and information systems. A core characteristic of the minor is that its foundational disciplines include quantum physics, basic physics (such as thermodynamics and statistical mechanics) and electronics and electrical engineering (including electromagnetics and circuit theory). The minor also enables students to study a wide-ranging curriculum, extending from atomic-level disciplines (such as solid-state properties and quantum chemistry) to systems dealing with electronic circuits and logical circuits in electronic devices. Students will attend an Introduction and a Laboratory/Seminar corresponding to the relevant component field of physical electronics, during which they will explore how the above issues relate to this field. This course design enables students not just to complement their major but also study essential questions pertinent to the field of physical electronics.

To be granted the Minor in Physical Electronics, 12 credits must be earned from the designated courses in the table below. How credits earned from those courses should be counted toward graduation will depend on the student's major.

List of courses for the Minor in Physical Electronics

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
FSE	Common	Introduction to Electronics	1	Winter (Q)			2				2	
FSE	Common	Introduction to Photonics	1	Winter (Q)			2				2	
FSE	Common	Introduction to Materials Science	1	Winter (Q)			2				2	
FSE	Common	Physical Electronics Seminar A†	1	Winter (Q)			2				2	
FSE	Common	Physical Electronics Laboratory A†	1	Winter (Q)			2				2	
FSE	Common	Physical Electronics Seminar B†	1	Spring (Q)				2			2	
FSE	Common	Physical Electronics Laboratory B†	1	Spring (Q)				2			2	
FSE	Math/CSCE	Circuit Theory A	1	Fall (Q)		2				2		
FSE	Math/CSCE	Electromagnetism A	1	Fall (Q)		2				2		
FSE	Math/CSCE	Circuit Theory B	1	Winter (Q)		2				2		
FSE	Math/CSCE	Electromagnetism B	1	Winter (Q)		2				2		
FSE	Math	Quantum Mechanics	1	Summer (Q)			2			2		
FSE	Math	Thermodynamics	1	Summer (Q)			2			2		
FSE	Math	Quantum Chemistry	1	Fall (Q)			2				2	
FSE	Math	Statistical Mechanics	1	Fall (Q)			2				2	
FSE	CSCE	Logic Circuits	2	Fall		2				2		
FSE	CSCE	Electronic Circuits A	1	Spring (Q)			2			2		
FSE	CSCE	Electronic Circuits B	1	Summer (Q)			2			2		
FSE	CSCE	Electron Device	1	Spring (Q)			2			2		

†The class is open for the limited number of students who intend to obtain the certificate of Minor in Physical Electronics.

Minor in Intermedia Arts and Sciences

The aims of this minor are integration and exchange between scientific technologies and artistic expressions, exploration of the new expressions generated from their interrelationship, inquiries into the meaning of this endeavor, and the creation of intermedia. For this purpose, the field of “representation engineering” is to be established, within which scientists who understand art, and artists who understand science can actively interact.

Students will take basic courses in the three subjects of intermedia art systems, intermedia engineering systems, and media management systems, to understand science technology, inquire into its meaning, and nurture the basic ability of intermedia for creation of new values.

To be granted the Minor in Intermedia Arts and Sciences, 12 credits must be earned from the designated courses in the table below. How credits earned from those courses should be counted toward graduation will depend on the student’s major.

List of courses for the Minor in Intermedia Arts and Sciences

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
FSE	Common	Information Design: Methods and Applications	2	Fall		2				2		
FSE	Common	Fundamentals of Visual Expression and Design	2	Spring			2			2		
FSE	Common	Acoustic Systems	2	Fall			2				2	
FSE	Common	Intermedia Art and Science Laboratory A	2	Fall			2				2	
FSE	Common	Recording Technology	2	Spring				2			2	
FSE	Common	Intermedia Art and Science Laboratory B	2	Spring				2			2	
CSE	ME	Mechatronics	2	Fall		2				2		
CSE	ME	Fundamentals of Robotics	2	Spring			2			2		

Minor in Electrical Engineering

Electronics and electrical engineering is an indispensable technological field, which underpins a range of industries and lifestyles in our society. Therefore, it is essential to study this field in order to maintain and develop an affluent future society. For example, in the future, society will become increasingly dependent on technologies related to electrical energy systems in order to promote the efficient use and ensure a safe supply of electricity – the key energy source in today's society. Furthermore, it will become increasingly essential to possess innovative technologies for enhancing the capacities and features of the existing electronic devices.

Technologies that are both human-friendly and eco-friendly will also become indispensable. With a view to developing such technologies, research and development are being pursued in a variety of fields, including environmental energy, nanotechnology, and optoelectronics.

Against this backdrop, the Minor in Electrical Engineering will provide students with specialized courses in electronics and electrical engineering, aiming to produce outstanding researchers and engineers, equipped with electronic and electrical engineering knowledge.

To be granted the Minor in Electrical Engineering, 12 credits must be earned from the designated courses of the table below. How credits earned from those courses should be counted toward graduation will depend on the student's major.

List of courses for the Minor in Electrical Engineering

School	Major	Course Name	Credits	Term	Number of hours per week							
					For APRIL enrollees				For SEPTEMBER enrollees			
					1st year	2nd year	3rd year	4th year	1st year	2nd year	3rd year	4th year
ASE	Common	Introduction to Computational Physics	2	Int.		Int.				Int.		
ASE	Common	Electromagnetism for Electronics and Electrical Engineering	2	Spring		2				2		
ASE	Common	Advanced Electrical Engineering	2	Spring			2			2		
ASE	Common	Frontiers of Device Engineering	2	Int.			Int.			Int.		
ASE	Common	Power Systems Engineering	2	Spring			2			2		
ASE	Common	Control Systems	2	Spring			2			2		
ASE	Common	Physics of Semiconductor Devices 1	2	Fall			2				2	
ASE	Common	Advanced Electric Power Devices and Machines	2	Fall			2				2	
ASE	Common	Smart Grid and Frontiers in Electric Energy Systems	2	Fall			2				2	
ASE	Common	Power System and Nuclear Power Generation Theory	2	Fall			2				2	
ASE	Common	Physics of Semiconductor Devices 2	2	Spring				2			2	
ASE	Common	Thin Film Engineering	2	Spring				2			2	

* int. = Intensive Course

11 Physical Education / Independent Study (Group D Courses)

In addition to credits for courses provided by this school, students can take physical education courses and independent study courses to earn up to 4 credits, which will be counted toward the credits needed for graduation.

(1) Physical Education Courses

Students can take physical education courses up to 4 credits per year. This may comprise theory and/or activities.

For more details, refer to the Guidebook issued by the Global Education Center.

(2) Independent Study Courses

Volunteers

This course requires students to submit an “activity report” and a report describing their achievements in welfare activities, disaster relief activities, or other social activities related to human rights, peace, the environment, or other deep problems faced by human society in which they became involved for their own reasons. The said two reports will be evaluated, and, if deemed of passing score, the final grade will be given with 2 credits as a Group D course. Students can take this course from 2nd year.

(Note)

- To take this course, students must submit in advance to the Center for Science and Engineering a “volunteer application form” and consent letter by their guarantor. For further details, please check the Faculty of Science and Engineering website.
- Volunteers are advised to apply for student insurance and compensation schemes. (Student Disaster/Injury Insurance and Student Education Research Responsibility for Compensation Insurance).

Internships

Practical internships of at least 60 hours (10 days or more), upon application, can be recognized as credits for Group D Courses (2 credits for over 3rd year, no overlapping courses). The objective is to foster high-level skills through hands-on experience of how their laboratory research and knowledge in related fields is applied in the professional environment. Companies and programs are selected for their relevance to future research, in consultation with a class teacher.

(Note)

- To take this course, students must submit an application in advance via MyWaseda as well as an internship evaluation report depending on the period of time with the company or other organization. For further details, please check the Faculty of Science and Engineering website.
- With respect to individual internships, a voluntary insurance policy is strongly recommended, as students are ineligible for either for the Student Disaster/Injury Insurance or for the Student Education Research Responsibility for Compensation Insurance. Students

would be able to sign up for Student Comprehensive Mutual Insurance with the University Co-operatives Mutual Aid Federation, at any Waseda University Co-op branch. Internships that are suggested by departments are eligible for student insurance and compensation schemes. If students are pursuing such an internship overseas, it is also required to take out overseas travel insurance as directed by the University. In this case, the student must obtain an application form from the Center for Science and Engineering and complete the process.

- In some cases, depending on the company hosting the internship, the intern may be required to sign an agreement with the university in addition to a pledge of participation. However, for internships that are entered into individually by the student, the university does not enter into any contract. Internships suggested by departments in principle do not require any contract to be entered.

- Students who have a “Student Visa”, should make sure that the work demands of the internship does not violate the terms of their visa.

List of Independent Study courses

For APRIL enrollees

Course Name	Credits	Number of hours per week							
		1st year		2nd year		3rd year		4th year	
		Spr. Sem.	Fall Sem.	Spr. Sem.	Fall Sem.	Spr. Sem.	Fall Sem.	Spr. Sem.	Fall Sem.
Volunteer	2			◎	◎				
Internship	2					◎	◎		

For SEPTEMBER enrollees

Course Name	Credits	Number of hours per week							
		1st year		2nd year		3rd year		4th year	
		Fall Sem.	Spr. Sem.	Fall Sem.	Spr. Sem.	Fall Sem.	Spr. Sem.	Fall Sem.	Spr. Sem.
Volunteer	2			◎	◎				
Internship	2					◎	◎		

12 Courses Offered by Other Programs, Majors, Schools, or Faculties

For courses that are categorized as courses of other programs, majors, schools, and faculties, the credits earned for these courses can be applied toward credits required for graduation up to the upper limit shown in “Table 1” and “Table 2” below.

Please note that students are not allowed to take any course that either has the same name or provides the same content as a course in their home major.

In principle, students are not allowed to take laboratory work, field work, seminars or drafting work, Bachelor’s thesis, or graduation research at other programs, majors, schools, or faculties.

Table 1: Credit categories for courses taken outside of the student’s own course and majors

Course Type	Category	Counted as
1 EBSE “Group C” courses offered by majors other than one’s home major.	Other major courses	Additional Electives (with the upper credit number limit stated in Table 2).
2 JBSE “Group C” courses offered by any departments in Faculty of Science and Engineering.	Other courses (JBSE)	Additional Electives (with the upper credit number limit stated in Table 2).
3 JBSE “Group A and B” courses offered by any departments in Faculty of Science and Engineering.	Not applicable	CANNOT register those courses.
4 Courses offered by Schools outside of FSE (i.e., Schools belonging to Faculties other than FSE).	Other courses (Other Faculties)	Additional Electives (with the upper credit number limit stated in Table 2).
5 Courses offered by CIE (Non-FSE body).	Other courses (Other Faculties)	Additional Electives (with the upper credit number limit stated in Table 2).
6 Courses offered by GEC other than courses type of “7”, “8” and “9” categories below.	Other courses (Other Faculties)	Additional Electives (with the upper credit number limit stated in Table 2).
7 Data Science courses and Computer Science courses offered by GEC.	Depends on a course *1	Depends on a course. *1
8 Mathematics on-demand courses offered by GEC.	Other courses (Other Faculties)	> For April Enrollees: CANNOT count toward graduation.
		> For September Enrollees: Counted as Group A2 Foreign Language (Japanese) up to 4 credits. *Any credits above 4 will be counted as Additional Electives (with the upper credit number limit stated in Table 2).
9 Physical Education courses offered by GEC.	Other courses (Other Faculties)	Additional Electives. * Counted as Group D (Physical Education / Independent Study) with an upper credit number limit of 4.
10 Japanese language courses offered by CJL.	Other courses (Other Faculties)	> For April Enrollees: Additional Electives (with the upper credit number limit stated in Table 2).
	Group A2 Foreign Language (Japanese)	> For September Enrollees: Including Japanese courses in FSE, Any credits will be counted as Group A2 Foreign Language (Japanese) with the upper credit number limit stated below: 【Mechanical Engineering】 20 credits 【Other Major】 8 credits
11 Courses for obtaining a teacher’s license in Japan offered by School of Education.	Teacher Training Program	CANNOT count toward graduation.

EBSE = English-based Degree Program, JBSE = Japanese-based Degree Program

FSE = Faculty of Science and Engineering, CIE = Center for International Education

GCE = Global Education Center, CJL = Center for Japanese Language

*1: Referred to the following website: <https://www.waseda.jp/fsci/en/students/registration/>

Table 2: Number of Maximum credits in each category by major

Major	Other major courses	Other courses (JBSE)	Other courses (Other Faculties)
Mathematical Sciences	No limit	4 credits	4 credits
Computer Science and Communications Engineering	No limit	4 credits	4 credits
Mechanical Engineering	No limit	16 credits	16 credits
Civil and Environmental Engineering	No limit	4 credits	4 credits
Physics	8 credits	4 credits	4 credits
Chemistry	No limit	8 credits	4 credits
Bioscience	No limit	4 credits	4 credits

[1] University-wide Open Courses

Waseda University offers a large number of courses that are open to all students regardless of their major or year in school. Generally referred to as “University-wide Open Courses”, these are comprised of courses in various fields provided by the Global Education Center (GEC), the Center for International Education (CIE), the undergraduate and graduate schools, partner universities, and other institutions.

All students have the option of registration in University-wide Open Courses, in addition to the regular curriculums set independently by each undergraduate school. Students who do register and receive credit for these courses can apply them towards their credits for graduation in accordance with the regulations established by their undergraduate school.

University-wide Open Courses present opportunities to go beyond the boundaries of one’s own undergraduate field of study by allowing students to enjoy the almost limitless array of choices that only a comprehensive university of Waseda’s size can offer, and by giving students the freedom to choose how to expand one’s possibilities while experiencing the joys of learning.

Departments Offering University-wide Open Courses and How to Get Related Information

Information	Courses, Syllabus, Registration	Class & Examination
Courses offered by:		
Schools/ Graduate Schools	<ul style="list-style-type: none"> Website of the department (school, center, etc.) offering the course Syllabus System (web) <i>Registration Guide of University-wide Open Courses</i> 	<ul style="list-style-type: none"> Website of the department (school, center, etc.) offering the course Official notice board of the department (school, center, etc.) offering the course
Global Education Center (GEC)		
Center for International Education (CIE)		
Partner Universities (For sophomore and above, some courses allow freshmen registration)	<ul style="list-style-type: none"> Website of the Global Education Center BBS for University Consortium (Tadaigaku Kouryu System)*1 found on MyWaseda. 	<ul style="list-style-type: none"> Website of the university offering the course *2)

< Attention >

As for how the credits you earned through the University-wide Open Courses will be handled, please refer to the syllabus, the manual for course registration, and/or other manuals of the School you belong to.

*1: This site is provided as a one-stop site to search for and register courses offered by other universities. Regarding how to access the site, refer to the Website of the Global Education Center.

*2: Website URLs of participating universities can be found in the *Registration Guide of University-wide Open Courses* and the Website of the Global Education Center.

[2] The organizations (excluding undergraduate and graduate schools) that offer University-wide Open Courses

2.1 Global Education Center (GEC) (URL: <https://www.waseda.jp/inst/gec/en/>)

GEC offers a tremendous variety of courses, open to all students, on subjects that go beyond the boundaries of each student's specializations and majors.

As for skills required of college students, GEC provides academic writing courses ("Academic Writing" etc.), mathematic courses ("Introduction to University Mathematics alpha (Calculating Interest)", etc.), data science courses ("Statistics Literacy alpha", "Introduction to Data Science alpha" etc.), information courses ("Introduction to Programming", etc.), English courses ("General Tutorial English", "Academic Writing and Discussion in English" etc.), all of which would make foundations of every academic field.

Moreover, GEC has had courses in rare languages that are rarely offered or not taught at other universities and a diverse number of distinctive sports training and athletics programs ("Rugby", "Kyudo, Japanese Archery" etc). GEC also offers international education courses ("Global Studies" series, etc.), and Japanese applied linguistics courses ("Japanese Education (Basic)", etc.).

In the group of courses called "Self-Competence Development courses", many courses emphasizing on problem solving and hands-on experience are provided. These courses consist of trainings and workshops conducted inside and outside Japan in collaboration with corporations and other institutions.

Besides offering such courses, GEC has provided opportunities to pursue a "Minor". In addition to one's major course of study learned in each student's undergraduate school, students can focus on other academic fields as a "Minor" through a systematic approach, aiming to reinforce their major, add a second string to their bow, and obtain applicational areas of their major. Students who complete their Minor gain "Minor Certificate" issued by the University on their graduation.

2.2 Center for International Education (CIE) (URL: <https://www.waseda.jp/inst/cie/en/>)

CIE offers unique courses to undergraduate students as a center of the promotion of international education programs, in addition to providing services and assistance for international students studying at Waseda and Waseda students intending to study abroad. The courses offered by CIE include those that can be taken at host universities as a part of their study abroad programs; those designed for short-term study abroad programs focusing on language learning, theme research, or cross-cultural experiences; those that can be taken with international students during the summer sessions at Waseda; and those called "International Japanese Studies" courses taught by professors invited from overseas universities.

Registration for a short-term study abroad program, so-called the "Foreign Language and Cultural Training Program", will be conducted in both Spring and Summer Terms. With this option, students who find it hard to participate in a long-term study abroad commitment will be able to have the opportunity to experience a short-term program while also earning credits.

2.3 Courses offered at academic partner universities

(URL: https://www.waseda.jp/inst/gec/en/undergraduate/other_univ/)

This course is only for student who attend undergraduate school.

University-wide Open Courses are offered by Waseda University and participating universities based on academic agreements. A large portion of these courses highlights the unique academic offerings of each university, giving students a wide selection of choices to register. In most of the courses provided by other universities, students must be at least in their sophomore year (some courses do allow freshmen registration) as a prerequisite for registration. Credits received for these courses may be applied to credits for graduation in accordance with the rules of each student's undergraduate school.

13 Obtaining Licenses and Professional Qualifications

(1) Teacher's license

The English-based Undergraduate Program in Science and Engineering, Waseda University does not offer any courses or curriculum for obtaining a Teacher's License in Japan.

(2) Other licenses and qualifications

Students on the English-based Undergraduate Program in Science and Engineering, Waseda University can also obtain licenses for 「図書館司書」, 「学校図書館司書教諭」 and 「博物館学芸員」. To obtain these licenses, students must register for the appropriate courses and attend classes offered in Japanese in the School of Education. (Some of these are also available in the School of Humanities and Social Sciences or School of Culture, Media and Society.) Students who wish to obtain these licenses, should refer to the Guide to Obtaining Licenses issued by the School of Education published in the middle of every March (all information provided in Japanese only).

14 Registration of Courses to Take

(1) Selection and registration

Students must register (apply for and confirm the registration of) courses to take for a given academic year during the specified course registration periods.

In selecting courses, read this handbook, the web syllabi, the Course Registration Guide, etc. thoroughly, set your own learning goals, and be sure that your schedule is not too tight. Consult your class academic advisor or receive his/her guidance, as needed, so that you can select appropriate courses. For details about how to register courses, read the documents handed out in the beginning of the academic year. Be careful not to register the wrong courses or fail to register necessary courses.

To attend courses provided by other schools or departments, refer to “III-11 Courses Offered by Other Programs, Departments, Schools, or Faculties” in the book.

Syllabi on the web <https://www.wsl.waseda.jp/syllabus/JAA101.php?pLng=en>

(2) Prohibition of attending courses without registration

Students are not allowed to attend the classes of a course for which they are not registered. Students cannot earn credits for a course in which they are not registered even if they attend the classes and/or complete the requirements for that course.

(3) Prohibition of changing courses once registered

Students will not be allowed to change or cancel their course registrations once the registration period has ended. Please take care in registering for your courses and be sure to confirm your registration results. For more details about registration procedures, please refer to the Course Registration Guide.

15 Class Time Slots

The class time slots of Waseda University are as follows:

Period	1	2	3	4	5	6	7
Time	9:00	10:40	13:00	14:45	16:30	18:15	19:55
	- 10:30	- 12:10	- 14:30	- 16:15	- 18:00	- 19:45	- 21:25

16 Examinations

Examinations include regular examinations (one to be held in the Spring Semester, and the other in the Fall Semester), report examinations, and in-class examinations. Regular examinations are conducted during the specific examination periods in the Fall and Spring Semesters. The time slots for these examinations may differ from the usual class time periods.

When taking examinations, keep the following in mind:

- (i) Please pay attention to the time schedules of regular examinations and any notices regarding examinations which may be provided after the announcement of the schedule; these are posted on the website of the Center for Science and Engineering (<https://www.waseda.jp/fsci/en/students/exam/>).
- (ii) Time schedules & venues for exams may vary depending on student ID numbers, classes, or departments.
- (iii) If examinations for two or more of your courses are scheduled in the same time slot, please inform the Center for Science and Engineering before the beginning of the examination period.
- (iv) Please sign your student identification card and put it at the edge of your desk when taking exams. If you fail to take your student identification card with you, you may not be able to take your examinations. If you have lost your student identification card, you must request that it be reissued.
- (v) In examination rooms, students must follow any directions given by the proctors.
- (vi) Write your name and student ID number clearly on the answer sheet.
- (vii) If you cannot take an examination due to unavoidable circumstances, such as bereavement, hospital admission due to illness or an accident, or a doctor's

recommendation to stay at home, the lecturers in charge may consider alternative measures for the missed examination. Students are expected to promptly submit appropriate evidence such as certification issued by public organizations or medical institutions to the Center for Science and Engineering.

Cheating

Under school regulations, students caught cheating in an examination will be suspended and stripped of credits for all courses registered during that semester. When an examination finishes, you must submit all answer sheets including blank ones to the proctors. Leaving an examination venue with the answer sheets may be treated as cheating. Before an examination begins, the proctors will announce the acts or behaviors that are considered cheating. Students must follow proctor's instructions during examinations.

17 Notes on Preparing Reports or Theses

Using all or part of text written by others or materials from a book, a website, or other publications in a report, thesis, etc. without mentioning the source constitutes fraudulent use or plagiarism, and will be punished.

The general rule in quoting or referring to others' sentences or materials when offering one's opinions is to indicate the quoted part with quotation marks or in other relevant ways and to give the source (specify the author's name, title, page number, publisher, and year of publication, or the website address and the date of access) correctly. Please note that it may be necessary to request the author's permission beforehand, when quoting a large portion of a book or website.

18 Posting of Grades

Grades are announced on MyWaseda by a date specified in each semester. Please check the date of grade announcement on the websites of the Center for Science and Engineering.

Grades are indicated by A+, A, B, C, and F. The grades A+ to C are passing grades. The grade F is a failing grade. In addition to these grades, the symbols H, S, and * are used in a grade report.

H... Means that the grade for the course is on hold. If you receive this mark, you will be given instructions by the instructor. If you do not follow these instructions, the grade F will automatically be applied when a given academic year ends.

S.... Given when a student fails a Group C specialized required course, but is allowed to take the same course in the next academic year along with another course scheduled in the same time slot. You will be required to submit an assignment and/or take examinations as advised by the instructor(s) in charge of the course.

* Means that you have registered for the course, but the instructor in charge has not given grades for the course.

Grade	A+	A	B	C	F	H	S
Score	100 - 90	89 - 80	79 - 70	69 - 60	59 -		
Transcript	A+	A	B	C	No indication		
Judgment	Pass				Fail		

Grade Point Average (GPA) Calculation

1. Calculation Formula

Waseda University uses an evaluation system with a set of conversion rates called Grade Points (4 points for A+, 3 points for A, 2 points for B, 1 point for C, and zero point for Failing Grades).

A Grade Point Average (GPA) is a score calculated by multiplying “number of credits” and “corresponding grade point (4 for A+, 3 for A etc.)”, summing up the figures obtained for all of the grades, and dividing the result by “total number of registered credits”.

The total number of registered credits includes credits for failing grades.

This is calculated using the following formula:

<Calculation Formula>

$$\frac{\{(\text{No. of A+ credits} \times 4) + (\text{No. of A credits} \times 3) + (\text{No. of B credits} \times 2) + (\text{No. of C credits} \times 1) + (\text{No. of Failing Grades} \times 0)\}}{\text{Total number of registered credits}} = \text{GPA}$$

*The GPA will be rounded to the second decimal place.

2. Courses used in the GPA calculation

The GPA calculation considers only registered courses that count as credit toward graduation. The following grades, however, will not be included in the GPA calculation even if credit from the course is counted toward the minimum number of credits required for graduation.

- N
- H (※Once the H grade is changed to an A+, A, B, C, or F, then it is included in the GPA calculation)

3. GPA on the Grade Report and Transcript of Academic Record

Please note that the GPA will appear on the grade report, but not on the transcript of academic record. We can issue a “transcript of academic record / GPA” indicating the GPA and the grades used in the GPA calculation.

19 Examination for Major Transfer

Study in these undergraduate programs assumes consistent performance within the academic system according to the student's major, comprising four years of study after admission.

After admission, however, if a student strongly feels that they are not suited to their chosen major and wish to change it, they may apply to take a transfer examination to transfer schools or majors. They must have sufficiently investigated their new major before application, since they will be expected to have the high academic ability and motivation required to succeed when applying.

Additionally, it will not necessarily be known whether their desired major is open to applications; students are expected to always check the latest information on the Faculty of Science and Engineering homepage.

For details regarding the application, procedures, and eligibility for Major transfer, please see the site below: https://www.waseda.jp/fsci/en/admissions_us/

IV

Student Life

- | | |
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1 International Student Handbook

The International Student Handbook (issued by the Center for International Education, herein after “CIE”) lists the services and programs available at Waseda University for international students. It also contains important information on daily life in Japan such as immigration procedures. The handbook is distributed for free at the International Student Orientation held by CIE. It is also available at: <https://www.waseda.jp/cie/handbook/index.html>

2 Faculty of Science and Engineering Website

The website of the Faculty of Science and Engineering provides various information regarding admission procedures, academic matters, and student affairs. The address of the website is: <https://www.waseda.jp/fsci/en/>

3 Student Number

A specific student number is assigned to every student when they are enrolled. It is an 8-digit number. The first 2 digits represent the school code and the next 2 digits represent the year of enrollment (the last 2 digits of the year). The 3rd digit “S” indicates that the student is an EBSE student enrolled in April. The 3rd digit “F” indicates that the student is an EBSE student enrolled in September.

The 4th digit represents the major code (refer to “major codes”) and the last 2 digits represent the student number.

A check digit (CD) is added after each student number, which is used when it is entered into a computer. A CD is added to prevent errors during number entry into a computer.

<School Codes>

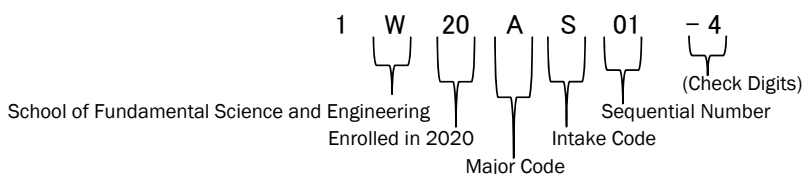
1W	School of Fundamental Science and Engineering
1X	School of Creative Science and Engineering
1Y	School of Advanced Science and Engineering

<Major Codes>

School of Fundamental Science and Engineering	
A	Major in Mathematical Sciences
C	Major in Computer Science and Communications Engineering
School of Creative Science and Engineering	
B	Major in Mechanical Engineering
D	Major in Civil and Environmental Engineering
School of Advanced Science and Engineering	
A	Major in Physics
C	Major in Chemistry
E	Major in Bioscience

<Intake Codes>

S	Spring Intake (April Enrollees)
F	Fall Intake (September Enrollees)



4 Student Consultation

(1) Center for Science and Engineering

The Center, which is composed of a General Affairs Section and an Academic and Student Affairs Section, provides consultation on all academic matters including course registration, classes, examinations, grades, enrollment (leave of absence, studying abroad, withdrawal, etc.), classroom reservations, and scholarships. The Center also manages LOST and FOUND articles. If you have questions about any of these matters, contact the office as needed.

Contact Information:	
Address	3-4-1 Okubo, Shinjuku-ku, Tokyo 169-8555 (1 st floor, Building 51, Nishi-Waseda Campus)
Tel / Fax	03-5286-3002 / 03-5286-3500
E-mail	soumu@sci.waseda.ac.jp (General Affairs Section) gakumu@sci.waseda.ac.jp (Academic and Student Affairs Section)
URL	https://www.waseda.jp/fsci/en/students/
Office hours	Monday - Friday 9:00-17:00 Saturday 9:00-17:00 (Closed during 12:30-13:30) *Office is closed on Saturdays during the summer and winter holidays.

(2) Class academic advisor

A class academic advisor system has been established to allow a class academic advisor to provide advice or guidance to students on school life. Those who wish to communicate with faculty members or want to receive advice from them about their study or private life should use this system to have a more meaningful school life. For more details, refer to the Course Registration Guide and the websites of the Faculty of Science and Engineering (<https://www.waseda.jp/fsci/en/students/counter/>). If you want to visit an advisor, make a reservation with the *kenkyushitsu* (faculty lab).

(3) How to contact part-time lecturers

Contact information (such as addresses, telephone numbers, etc.) of part-time lecturers is not officially announced. If you wish to contact a part-time lecturer, please bring mail to the Kyoinshitsu (faculty room, Building 52, 2nd floor), in the form of an envelope (with stamp attached), a return envelope (addressed to yourself, with stamp attached), and a letter (with your message, your contact details, etc.).

* Students can check the room numbers of kenkyushitsu (faculty labs) or e-mail addresses of full-time faculty on the websites or at Building 51 1st floor bulletin board.

(4) Center for International Education (CIE)

The Center for International Education (CIE) provides various types of supports for international students. Contact the CIE office whenever you have questions or concerns about living in Japan.

Contact Information:

[Address] 1-7-14 Nishi-Waseda, Shinjuku-ku, Tokyo 169-0051 (4th floor, Building 22, Waseda campus)

[Tel / Fax] 03-3207-1454 / 03-3202-8638

[E-mail] cie@list.waseda.jp

[URL] <https://www.waseda.jp/inst/cie/en>

[Office hours] Monday -Saturday 9:00 – 17:00 (Lunch hours: 12:30-13:30)

* Office is closed on Saturdays during the summer and winter holidays.

(5) Student Diversity Center

At the Student Diversity Center the following 3 offices support students and work together to create and guarantee a fulfilling campus environment that welcomes the diverse values and lives of our students regardless of nationality, ethnicity, gender (including the full spectrum of sexual diversity not only men and women) sexual orientation, gender identity or disability.

• Office for Students with Disabilities

The Office for Students with Disabilities (OSD) provides essential academic support to students with disabilities (hearing impairments/ visual impairments/ mobility impairments/ developmental disorders/ other forms of disabilities (e.g.aphasia, internal impediment) studying at Waseda University. Students who wish to make use of the support or offer support to students with disabilities are requested to contact the OSD.

Support Department for Students with Physical Disabilities

Place: #110 Building No.3 TEL: 03-5286-3747 E-mail: shienshitsu@list.waseda.jp

Support Department for Students with Developmental Disorders

Place: 1st Floor, Building No.25 TEL: 03-3208-0587 E-mail: shien02@list.waseda.jp
Office Hours: Weekdays 9:00 to 17:00 (Closed on weekends)
URL: <https://www.waseda.jp/inst/dsso/en/>

• Intercultural Communication Center (ICC)

At the Intercultural Communication Center (ICC) we create and host events and programs that allow students to interact regardless of nationality, boundaries and culture. If you are interested in other cultures or sharing your own, please come and see us! We also have ICC lounge on the 1st floor of building 3, so feel free to drop by.

Place: 1st Floor, Bldg. 3

Opening Times:

During Terms: Weekdays 10:00am-6:00pm, Saturdays 10:00am-5:00pm

During Term Breaks: Weekdays 10:00am-5:00pm, Closed Saturdays

TEL : 03-5286-3990 E-mail : icc@list.waseda.jp

URL : <https://www.waseda.jp/inst/icc/en/>

• Gender and Sexuality Center

The Gender and Sexuality Center aims at giving the LGBTQ community and its Allies in Waseda University a sense of belonging, as well as providing a free place for all those who wish to explore and learn more about gender and sexuality issues.

Students can get access to abundant learning materials (books, videos, etc.) here and take part in the events related to gender/sexuality topics.

In addition, if students have any difficulties regarding gender/sexuality related issues, please feel free to talk to our specialist staffs. (Confidentiality is assured.)

Place: #213/214 Building No.10 E-mail: gscenter@list.waseda.jp

Office Hours: Weekdays 9:00 to 17:00 (Closed on weekends)

URL: <https://www.waseda.jp/inst/gcenter/en/>

(6) Harassment Prevention

Waseda University has instituted a variety of measures as part of its commitment to harassment prevention. This includes not only the establishment of the *Waseda University Guidelines for Harassment Prevention*, as well as consultation and grievance procedures, but also through educational activities in print, online, and in seminars, etc. aimed at raising awareness and proactively deterring harassment.

Q: What constitutes harassment?

A: Harassment as defined by the University's guidelines includes all forms of expression and behavior, which reflects unfavorably, causes discomfort, or otherwise insults the dignity of the victim on matters including one's sex, social status, ethnicity, national origin, beliefs, age, occupation, physical characteristics or features, and one's identity. In general,

harassment in universities takes one of the following forms: sexual harassment, any expression or behavior of an offensive, sexual nature; academic harassment, any offensive expression or behavior relating to one's studies, education, or research; and power harassment, any expression or behavior of an offensive nature made by a person of superior social standing or someone who has authority over the victim.

Q: Why is harassment considered a problem?

A: From the victim's perspective, harassment hinders the ability to establish and maintain a comfortable environment for learning, research, and employment; the overall impact of such negative behavior constitutes an infringement on the victim's human rights. Sometimes, actions and behavior taken by someone without the slightest thought can be the cause of almost unbearable distress to others.

Harassment cases often have an adverse impact on the daily lives of those who have come forward as victims.

Q: Can students ever be accused of perpetrating harassment?

A: Yes, of course. For example, one could easily imagine the following scenario taking place at a social mixer involving students belonging to one of the University's many interest groups ("circles").

When a student makes repeated comments of a sexual nature in front of others; pressures others into drinking alcohol; or persistently asks a member to go out on a date, and such behavior results in other students feeling uncomfortable, these actions become examples of sexual harassment and power harassment.

Q: If you feel that you or someone you know may be experiencing "harassment in some form," what should you do?

A: If you feel that you are a victim of harassment, or know of a friend who may be a victim, or have a question or opinion regarding the University's policy and procedures, please do not hesitate to contact our Consultation Desk manned by our staff of trained professionals. For more information on the consultation process and other matters, check our website.

■ CONSULTATION DESK

Anonymous consultations are accepted via phone, email, fax, letter, and any other means in the initial stages. Your privacy and wishes are of outmost concern to us. Persons requesting an in-person consultation are asked to make an appointment by phone or via email.

【TEL】 03-5286-9824

*(When staff members are not available to answer calls due to a consultation appointment, callers may be asked to leave a message on the answering machine.)

【FAX】 03-5286-9825

【E-mail】 stop@list.waseda.jp

【URL】 <https://www.waseda.jp/inst/harassment/>

Consultation Hours: Mon – Fri, 9:30-17:00

Location (Consultation Desk):

Building 28,1F

1-1-7 Nishi-Waseda

Shinjuku-ku, Tokyo 169-0051

■ Waseda University external harassment consultation desk

[NEC VALWAY, Ltd. (Subcontractor)]

【TEL】 0120-123-393

Reception hours: 8:30-18:00 on weekdays

【URL】 <https://koueki-tsuhou.com/WFcXVtaEFdCd/en/>

※ English, Chinese and Japanese are available.

5 Advancement to Graduate School

A five year doctoral course consists of a “master’s program” for two years and a “doctoral program” for three years.

To complete a master’s program, students must be enrolled in the graduate school for at least two years, obtain the specified number of credits set by each graduate school, receive necessary research instruction from a supervisor and pass the master’s thesis review and a final examination.

After completing the program, students will be granted a master’s degree in engineering or in science.

Students who make outstanding research achievements may be granted a master’s degree with the approval of the Graduate School Steering Committee if they are enrolled in the program for at least one year. They can complete the master’s program early based on the condition that they would advance to the doctoral program.

To complete a doctoral program, students must be enrolled in the graduate school for at least three years, earn the required credits prescribed for each department, receive a required research instruction from a supervisor, and pass a doctoral thesis review and a final examination.

The Graduate School Steering Committee may admit students enrolled in a doctoral program for at least 1 year to be granted a doctoral degree if they make outstanding research achievements.

After completing a doctoral program, you will be granted a doctoral degree in engineering, science, or other areas of specialization.

Please refer to the following URL or contact the Graduate Admissions Office in the Center for Science and Engineering for details of admissions for the graduate programs.

https://www.waseda.jp/fsci/EN/admissions_gs/

6 Employment

(1) Job hunting

Science and engineering students can apply to companies for a job under two different systems: the open application system and the recommendation system. The open application system allows students to apply directly to companies for a job according to job postings by companies. The recommendation system, a unique job application style for science and engineering students, is based on requests from companies to recommend applicants and, in response, the university (undergraduate schools, departments, etc.) recommends students. Companies may specify a department or a quota, so the university (undergraduate schools, departments, etc.) will ask for interested students and decide which individuals to

recommend. A selection process is conducted if the number of applications exceeds the quota. For more details, refer to the career advisors of your department.


(2) Career advisors' guidance

Each department has career advisors who provide career guidance for graduating students. They provide appropriate and necessary guidance or advice on job hunting or going on to graduate school. Students must report their job hunting activities to career advisors, including any informal job offers (“*Naitai*”).

(3) Waseda University Career Center

Waseda University Career Center provides a wide variety of career-related services ranging from job-hunting activity supports to changing of visa status to “job-hunting visa.” **Individual career consultation is one of the most recommended service;** students are able to consult any career-related matters for up to 40 minutes in English (and in Japanese). In order to use this service, a reservation via e-mail is necessary. Please see the webpage for detail. We are waiting for you to support your career!

Major activities	
Career Events	Hold job seminars throughout a year. Check our webpage for event schedule.
Individual Career Consultation	40-min of individual consultation in English and Japanese available. Need reservation. 10-min quick concierge available at Waseda campus. No need for reservation.
Company and recruitment information	Access to “Career compass” of MyWaseda
Internship desk	Internship programs and credit transfer
Guidebooks	Design your future guidebook enriches your student life. Job-hunting handbook provides you the job-hunting information
E-news letter	Provide career events information via e-mail (2 times per month)
Visa status change support	student visa→“designated activities” visa とくていかつどう しゅうしょくかつどうけいぞく 特定活動（就職活動継続）

Contact Information:		Webpage
Location	3F, Student Union Bldg., Toyama campus	
E-mail address	career@list.waseda.jp	
TEL	03-3203-4332	
Webpage	https://www.waseda.jp/inst/career/en/	

(4) Career Information room

Job-postings (cards) for science and engineering students, company profiles and other reference materials are available in the Career Information Room located in the Building 61 in the Nishi-Waseda Campus.

In the Career Information Room, students can get information on recruiting, various companies, and government and municipal offices, and find reference books to investigate industries or companies, information magazines, job hunting experience notes from senior schoolmates and other materials.

(5) Report career path after graduation

When students graduate, they will need to report their career path such as employment, advancing to graduate schools, study abroad, self-employed, undecided, etc.

MyWaseda ⇒ Student Affairs ⇒ Career Compass ⇒ Report Preliminary Offers and Post Graduation Plans (UG and Master students)

7 Student Identification Card

Your student identification card can be used as an ID, and may have to be presented in various academic situations. Students should always carry their student identification card and be careful not to damage or lose it. The student identification card should not be rent or transferred to others.

The student identification card consists of a card and a back side sticker where the valid year is printed. The card is not valid until the back side sticker is put on to the backside of the card. A student identification card is valid for 1 year, specifically from April 1st of the year printed on the backside sticker to March 31st of the following year. Put your name in the signature space of the front side.

(1) Issuance

For new students, a student identification card is issued in exchange for his/her examination admission card.

For second year students or seniors, a back side sticker is issued at the end of the Fall Semester. The student identification card can be renewed by replacing the sticker for the previous year with a new sticker.

If you want to change the photo on your student identification card while enrolled, you can change it free of charge only once. To do so, visit the Center for Science and Engineering and ask for change of it.

(2) Lost card

If you have lost your student identification card, report it to the police immediately because it may be used fraudulently. Then, go through the reissuance procedure at the Center for Science and Engineering.

(3) Reissuance

To apply for reissuance of the lost card, submit the Application for Reissuance with a color photograph (4 cm vertical and 3 cm horizontal) of your face to the Center for Science and Engineering. Reissuance will cost 2,000 yen.

(4) Presentation

Students must present their student identification card when taking examinations, using Waseda University Library or students' reading rooms, applying for issuance of various certificates or student discount cards (“*Gakuwari*”(学割)), receiving handouts, or if asked to by faculty or staff members of the university.

(5) Invalidation

When your status as a student ends following graduation or withdrawal, your student identification card is invalidated. Please immediately return it to the Center for Science and Engineering. When students graduate from the university, they will be granted a diploma in exchange for their student identification card.

8 Issuance of Various Certificates

The Center for Science and Engineering issues certificates listed in the following table. Certificates are basically issued on the spot, but students should request the issuance of a certificate well in advance because it may take several days to issue one due to system maintenance or depending on the certificate type.

(1) Fees

Issuance of certificates will incur a fee.

Certificate issued to students: 200 yen per copy (including certificates requested by students by the end of the month of his/her graduation date)

Certificate issued to graduates or those who have withdrawn: 300 yen per copy

(2) Method of issuance

- (i) Through automatic certificate issuing machines:
To use the machines which are installed at several locations in campuses, students must have their student identification card and their password for MyWaseda ID.
- (ii) Through application at a counter of the Center for Science and Engineering:
Fill in the specified Application for Certificate Issuance, affix stamps (these can be bought from a vending machine inside the Center) to the application form, and submit it with your student identification card to the Center staff.

Certificate types
★ Certificate of Enrollment
★ Academic Transcript
★ Certificate of Expected Graduation
Certificate of Graduation
★ Certificate of Academic Transcript and Expected Graduation
Certificate of Academic Transcript and Graduation
Certificate of Withdrawal
★ Certificate of completion (Minor)
★ Transcript of credits (Minor)

*Certificates with (★) can also be issued by an automatic certificate-issuing machine.

(3) Student discount card (“*Gakuwari*”)

Students can get student discount cards (“*Gakuwari*”) from automatic certificate-issuing machines.

9 Changes in the School Register

When there are any changes in your school registration status or in your guarantor’s information, you must submit the appropriate application forms and/or notices for such changes to the Center for Science and Engineering. The forms are available in the Center for Science and Engineering.

(1) Application for a leave of absence

- (i) Requirements for a leave of absence
If you cannot attend classes (including examinations) for 2 consecutive months or longer because of illness or other legitimate reasons, you can take leave of absence by obtaining permission from the dean of your School through the application procedures specified by the Faculty of Science and Engineering. Please first consult and ask your class academic advisor or supervisor to write their opinion on the form requesting a leave of absence and submit it to the Center for Science and Engineering

by the specified deadlines for the semester. Please note that leaves of absence are not permitted for taking an entrance examination at another university.

	Deadline to submit an application for leave of absence	End of leave of absence	Date of returning to school	Number of years of leave of absence
Spring semester	May 31	September 20	September 21	0.5 years
Fall semester	November 30	March 31 of the following year	April 1 of the following year	0.5 years

(ii) Period of leave of absence

Leaves of absence are either for the Fall Semester or for the Spring Semester. Under special circumstances, students may be allowed to take leave of absence for more than one semester by submitting application forms to the Center for Science and Engineering. The periods in which leaves of absence are taken are not counted into enrollment years. Students cannot take leaves of absence for more than 4 years in total.

(iii) Tuition and fees for the period of leave of absence

The tuition and fees to be paid during leave of absence will depend on the submission date of application forms. The payment details are as follows:

Fall Semester	School expense	
If submitted by October 31 *1	Enrollment fee	50,000 yen
	Student Health Promotion Mutual Aid Association fee	1,500 yen
If submitted from November 1 through November 30	Full amount for that semester	

Spring Semester	School expense	
If submitted by April 30 *1	Enrollment fee	50,000 yen
	Student Health Promotion Mutual Aid Association fee	1,500 yen
If submitted from May 1 through May 31	Full amount for that semester	

*1: 40,000 yen for the alumni association membership fee is required if you take leave of absence during the last semester of the standard 4-year undergraduate period.

* If you take a leave of absence upon entering the university, tuition and fees are not reduced.

* If you take a leave of absence due to military service, please consult the Center for Science and Engineering.

(2) Application for studying abroad

- (i) If students are to be engaged in educational or research activities at overseas universities or higher educational institutions for 1 semester or longer, their registration status can be changed to “studying abroad” with permission from the dean of their School through application procedures specified by the Faculty of Science and Engineering. If you are not sure whether your case is treated as studying abroad or not, check with the Center for Science and Engineering in advance.
- (ii) While students are enrolled in the School, they can study abroad for up to 1 year. Students can study abroad for longer if they have special reasons.

- (iii) The period of study abroad is not basically included in the number of enrollment years, except for CS programs (see “15 Study Abroad” for details). However, one semester or one year of the studying abroad period can be included in the number of enrollment years of the School if what was studied abroad is judged by the University to be equivalent to completion of part of the programs in the student’s School, in light of the number of credits earned at overseas universities, the period required for earning them and other conditions. For more details, contact the Center for Science and Engineering.
- (iv) For more details about tuition and fees during periods of studying abroad, contact the Center for Science and Engineering. Contact the Center for International Education if you join one of their overseas study programs.

(3) Application for returning to school

- (i) Students who want to get readmitted to the School after a leave of absence or studying abroad, will have to follow instructions and necessary documents which will be sent to the student and their guarantor within an appropriate period of time by the Center for Science and Engineering.
- (ii) Students are only allowed to return to the School at the beginning of a semester.

(4) Application for withdrawal

- (i) If you want to withdraw from the university, apply at the Center for Science and Engineering with your student identification card.
- (ii) If you withdraw from the university during a semester, you will have to pay tuition and fees for that semester. For more details, contact the Center for Science and Engineering.

(5) Application for readmission

Students who withdraw from the university for a legitimate reason and apply for re-admission within 7 years of the academic year following their withdrawal may be re-admitted at the beginning of a School year. For more details, contact the Center for Science and Engineering.

(6) Notice of change of name, address, guarantor, etc.

- (i) In case of any changes in your address, phone number or other personal information, immediately register the new information via the Profile screen of MyWaseda. If your address is changed, obtain a new back side sticker for the student identification

card in the Center for Science and Engineering after an e-mail message for approval has been sent to your Waseda mail address.

- (ii) In case of any changes in the addresses and/or phone numbers of your guarantor or payer of tuition & fees, immediately go through specified procedures in the Center for Science and Engineering.
- (iii) In case of any change in your visa status, immediately submit a copy of your foreign registration card or residence card (both sides) to the Center for Science and Engineering.
- (iv) A change of your given and/or family name must be reported with a copy of your passport or other applicable relevant documents.
- (v) In case of change of your guarantor due to death or other reasons, a new guarantor must be reported immediately to the Center for Science and Engineering.

10 Scholarships

Regular students enrolled in the undergraduate and graduate schools can apply for scholarships at Waseda University. However, the following students are NOT eligible: Japanese Government Scholarship (Monbukagakusho) students, students supported by overseas governments, students receiving scholarships from scholarship organizations for their tuition, and non-degree research students. Depending on the student's resident (VISA) status, there are two ways to apply for scholarships (Students can only register one of the following).

- (i) For students with resident (VISA) statuses of “Permanent Resident”, “Long-Term Resident/Teijusha”, “Spouse/Child of Japanese Resident”, or “Spouse/Child of Permanent Resident” and Japanese students**

Foreign nationals with the above statuses can only apply for scholarships for Japanese students in the same way as Japanese students. Those who wish to apply for the scholarships need to fill out an application document attached to the Scholarship Information Guidebook, “CHALLENGE”, which is sent together with other enrollment information, and submit it by the deadline. “CHALLENGE” is also available at the Center for Science and Engineering from January through March. Please note that the above students cannot apply for the scholarships (ii) below (described in the “International Students Handbook”).

Scholarship information is available on the website of the Faculty of Science and Engineering (<https://www.waseda.jp/fsci/en/students/tuition/>) and also posted on the Main gate bulletin board in Nishi-Waseda Campus.

(ii) For students with resident (VISA) statuses other than the statuses in (i) above

Privately financed regular international students can apply for scholarships for international students. For more details, please refer to the “International Student Handbook.” Scholarship information is also posted on the bulletin board in the Center for Science & Engineering (1st floor of Building 51) and the URL below:

https://www.waseda.jp/fsci/students/tuition/#anc_11/

11 Rules on Use of Bulletin Boards

(1) Strictly observe the following rules in using standing signboards, notices and fliers in campuses:

(i) Required information

Clubs or student groups registered with the university: Specify the group name.

Clubs or student groups not registered with the university: Specify the group name and the department, academic year and name of the representative of the group.

(ii) False advertisements, invasions of privacy of other people and defamation are prohibited.

(iii) Notices against these rules may be removed without prior notification. Groups that violate these rules may no longer be permitted to use any standing signboards or give out notices or fliers.

(2) Standing signboards

As a rule, clubs or other student groups are not permitted to use standing signboards on the Nishi-Waseda Campus. However, they may be permitted to use standing signboards if it is judged that there is a justifiable reason.

(3) Notices

For details about bulletin boards, refer to the table on the next page. Observe the following rules in using bulletin boards. Notices against these rules will be removed.

(i) Apply to the Center for Science and Engineering (Academic and Student Affairs Section) for approval for use of the bulletin board.

(ii) Notices can be put on the bulletin boards for up to 3 weeks after approval is obtained.

(iii) Follow the notice size and number rules described below:

Bulletin board near the main gate: 55 cm long and 45 cm wide (size of a newspaper page) or smaller, 1 sheet

Bulletin board in buildings: 40 cm long and 27 cm wide (size of half a newspaper page) or smaller, up to 2 sheets

(iv) Please use thumbtacks when putting notices on bulletin boards. For bulletin boards on which thumbtacks cannot be used, use masking tape.

(v) Remove expired notices on your own.

(4) Distribution of fliers

Observe the following rules strictly in distributing fliers on campus:

(i) Distributing fliers for advertisement or for other commercial purposes (as a part-timer, etc.) is prohibited.

(ii) Students are only allowed to distribute fliers by hand. Do not force people to accept fliers. Putting fliers on classroom desks, which gets in the way of conducting classes, is prohibited.

List of bulletin boards

Location	Bulletin board	Purpose
Main gate bulletin board	General information bulletin board	Information about notices posted on other bulletin boards Information about lecture meetings Event information Information about student societies' events, internship
	Admission bulletin board	Entrance examination information
	Student Support bulletin board	Scholarship (mainly for Japanese students) Event information, job search related information, notices from career center
	Class information bulletin board	Undergraduate and graduate school calendars Information on Open Education Center, Teacher Training Program, MNC, etc. Course registration / grade announcement information Class cancellation information / Reports Examination information, Course Time tables, Classroom changes
North Side Pathway of Building 51 st , 60 th , 61 st	Bulletin board for each School	Information on individual departments
1 st floor of Building 51 (Center for Science & Engineering)	International student support bulletin board	Scholarships for international students, Career Info. and Information from ICC
1 st floor of Building 61	Career Information bulletin board	Career Information for Japanese and international students, Internship information for Japanese and international students
1 st floor of Building 56	Laboratory work bulletin board	Information about Science and Engineering Laboratory, Applied Physics Laboratory, etc.

2 nd floor of Building 57	Bulletin board for clubs recognized by the Faculty of Science and Engineering	Space for announcements from clubs recognized by the Faculty of Science and Engineering
Lounge in the 2 nd floor of Building 57	Event bulletin board	Announcements of different events
Student lounge of Building 51	Bulletin board for student societies only	Space for announcements from student societies
3 rd floor of Building 50	Bulletin board for the office of Building 50	TWIns information, seminar room timetable, lecture information

12 Use of Classrooms and Common Seminar Rooms

To use classrooms for extracurricular activities, students have to submit an “Application for Use of Classrooms / Seminar Rooms” form available in the Center for Science and Engineering (Academic and Student Affairs Section). When submitting the form, keep the following in mind:

(1) Qualification to use classrooms

Only clubs recognized by the Faculty of Science and Engineering and equivalents and other groups headed, chaired or consulted by a full-time faculty member of the Faculty of Science and Engineering can use classrooms.

(2) Responsible person

The responsible person (full-time faculty member) must put his/her seal on the application for use.

(3) Submission of an application for use

An application for use must be submitted at least 3 business days beforehand.

(4) Available period

As a rule, use of classrooms is allowed except for the following periods:

Sundays, national holidays, Saturdays during holiday periods, period between the entrance ceremony and the start of classes, 2-week periods after the start of fall and spring semester classes, end of Fall and Spring Semester examination periods, summer construction period, Rikoh-ten (exhibition for Science and Engineering Schools) periods, entrance examination periods during which campuses are closed, preparation periods for entrance examinations and periods during which classes are cancelled for other events.

(5) Available time

As a rule, classrooms can be used between 18:15 and 20:00 on Monday through Friday, and between 14:45 and 20:00 on Saturday. During holiday periods, classrooms can be used between 9:00 and 17:30.

(6) Classrooms available

All classrooms located in Building 52, 53, 54, 56, 57, 58, 60, and 61, and common seminar rooms in Building 51, 60, 61, and 63 in Nishi-Waseda Campus.

(7) Available period

As a rule, a classroom can be used for up to 1 month. If students want to use a classroom for a longer period, they must submit an application for use again.

(8) Notes on using classrooms

- (i) Using classrooms in a manner that interferes with classes, education, research or business of the university or undergraduate/graduate schools is not allowed.
- (ii) Pay attention to the surrounding classrooms and do not disturb classes taking place in other classrooms.
- (iii) Do not move tables, chairs, and other furniture in classrooms.
- (iv) When using a classroom, please strictly observe the time period allowed.
- (v) In case of an emergency that makes it necessary for the university to use the classrooms, students may be assigned other rooms.
- (vi) There are cases when a classroom will be unavailable due to reasons such as construction of school buildings.

13 Extracurricular Activities

(1) Intercultural Communication Center

The Intercultural Communication Center (ICC) provides a meeting point for international students and Japanese students studying at Waseda University. It promotes mutual exchange between students beyond nationality and cultures. Throughout the year, the ICC organizes a variety of events on and off campus including country festivals, talk sessions, language and cultural exchange, language lunches, field trips and sports events. Please refer to the ICC website or visit the reception to confirm event information.

Contact Information:		
Address	1 st floor, Building 3, Waseda campus	
Tel	03- 5286 - 3990	
E-mail	icc@list.waseda.jp	
URL	https://www.waseda.jp/inst/icc/en/	
Office hours	During Semester: Weekdays: 10:00 – 18:00	Saturday: 10:00 - 17:00
	During Term Breaks: Weekdays: 10:00 - 17:00	Saturday: Closed

(2) Student club activities

Waseda students organize a wide variety of clubs, covering every interest and activity imaginable. Joining in club activities can be useful for establishing bonds with Japanese students and to understand Japanese culture and social systems. This website can be visited (<http://www.waseda.jp/student/gakusei/circle-e.html>) for a list of clubs.

Also, reference books on student clubs are available at the Center for International Education. There are clubs and groups especially for international students. Please refer to the International Student Handbook for details.

14 Safety Management

In the Nishi-Waseda Campus of Waseda University, more than 10,000 people including students, faculty and staff gather for education and research activities. As is often the case with a university of science and engineering, more than 4,000 fourth year students of undergraduate schools and graduate students are engaged in a variety of research activities. To prevent possible accidents during education and research activities and work on and improve other safety issues, the Nishi-Waseda Campus Safety and Health Committee of faculty and staff has been established. The committee has developed various safety management systems and supervises school-wide safety and health inspections and other safety management functions.

Students should observe the following rules:

- In laboratory classes, observe safety precautions explained during the Laboratory Work Guidance and work on experiments with safety in mind.
- Take note of the special precautions for your field of research to ensure safety in experiments carried out as part of your graduation thesis. Follow the directions of supervisors and work on experiments safely.
- Participate actively in safety workshops held by laboratories and observe school rules, etc.

Use the Safety Guide and “Safety e-learning program” (Waseda Moodle) issued by the Nishi-Waseda Campus Safety and Health Committee, which describes the safety of experiments

carried out as part of graduation and master's theses, and contact the technical staff of relevant laboratories, etc. if you have any questions (anzenrenraku@list.waseda.jp). The Safety Guide is available at the laboratories and the Technology Planning Section, or can be checked via the following URL:

Nishi-Waseda Campus Safety Guide: <http://www.sci.waseda.ac.jp/LABSafety/guidance>

About Safety Management at TWIns:

https://www.waseda.jp/inst/twins/en/current/research/#anc_1

Science and Engineering School students must observe school rules as well as the relevant laws and regulations, and always be aware of the safety of themselves and their surroundings, and the safety and conservation of the global environment.

Response to emergencies

(1) Injury / serious illness

If you are severely injured or become seriously ill, call the school emergency number (main gate security guard office: extension: 2000, external number: 03-5286-3022). If you call 119 directly in an emergency (including in the event that the injured or ill persons should not be or cannot be moved), call the school emergency number too because an ambulance must be guided by security guard personnel. If the injured or ill persons can be moved, have him/her receive treatment in the Health Support Center (Nishi-Waseda branch at the 1st floor of Building No. 51, extension: 2640 / 2641) and have him/her get external medical help if needed. If the center is closed, call the school emergency number (extension: 2000, external number: 03-5286-3022). On the Nishi-Waseda campus, there are 7 AEDs (for their locations, see <http://www.sci.waseda.ac.jp/LABSafety/guidance> *written in Japanese) available for use in emergency situations. If you are interested in learning how to perform CPR or use an AED, you can take “普通救命講習” (First Aid Seminar). Details for the seminars will be posted on the Technology Planning Section website or MyWaseda.

(2) Fire

Use a nearby fire extinguisher to initially extinguish the fire, and immediately call the school emergency number (main gate security guard office: extension: 2000, external line: 03-5286-3022) to report the place and condition of the fire and receive instructions. If the fire cannot be extinguished with a fire extinguisher, escape to a safe place with those around you. Corridors of classroom buildings are equipped with emergency telephones (red boxes). You can use them to call extension 2000.

(3) Earthquake

Secure safety under a desk or other shelter until the earthquake dies down. In case of a major earthquake, the university is supposed to set up disaster countermeasures offices in the headquarters and campuses to collect information and secure the safety of students, faculty and staff. Follow the instructions of the offices. Refer to the “Earthquake Response Manual for Students” or the website below for more information:

<https://www.waseda.jp/top/en/about/work/organizations/general-affairs/safety/manual/earthquake>

15 Study Abroad

1) General information

Students who are considering studying abroad should participate in the Study Abroad Fair held by the Center for International Education (CIE) in April and October. This fair provides useful information for those who are considering study abroad, such as an overview and notes on studying abroad, how to obtain program information and how to use Waseda Global Gate (1st floor of Building No. 22 of the Waseda Campus). In particular, long-term overseas study requires more than 1 year of preparation. Students should check the 1-year application procedure for overseas study and other detailed schedules, and other information in MyWaseda and the website of the Center for International Education as needed.

When students study abroad through a university program, the expenses will depend on each program and may vary from year to year depending on circumstances of host universities. Scholarships for studying abroad include scholarships granted under the short-term overseas study promotion system of the Japan Student Services Organization, the Waseda University Student Exchange Scholarship, and the Scholarship for Exchange Program Scheme. The scholarship application bulletin and other documents will be provided after the student’s host university is confirmed.

For more details about when to study abroad, tuition and fees, whether credits earned in a foreign university are approved or not, and overseas study programs provided by the School, consult the Academic and Student Affairs Section of the Center for Science and Engineering. For more details about overseas study programs for all students provided by the university or the application procedure, refer first to STUDY ABROAD HANDBOOK or other information prepared by the Center for International Education (<https://www.waseda.jp/inst/cie/en>).

Study abroad programs for all students provided by the university are divided roughly into the types described below.

2) Short-term study abroad during summer quarter and the summer vacation period

In these English-based undergraduate programs, we recommend that students enter in both April and September participate in short-term study abroad through overseas summer programs, based on the goal to “Send all students to study abroad” in Waseda Vision 150. To that end, we have adopted a quarter system in curriculum design for underclassmen of all majors, and make academic considerations for the following recommended periods:

[April entrants] Second year summer quarter + summer vacation period

⇒ Second year mid-June – mid-September

[September entrants] First year summer quarter + summer vacation period

Quarter	spring Q	summer Q	fall Q	winter Q	spring Q	summer Q	fall Q	winter Q	spring Q	summer Q	fall Q	winter Q
April enrollees	1 st year				2 nd year	★	2 nd year		3 rd year			
September enrollees			1 st year			★	2 nd year				3 rd year	

★...Recommended periods

We expect that by taking advantage of these study abroad periods, students in English-based program will receive not only language training and cross-cultural experiences, but invaluable opportunities for self-improvement that may lead them to become globally active scientists or engineers. These include opportunities to build advanced language proficiency, enhance specialized skills by taking STEM courses, and participate in research internships encouraging self-study.

Students should look up detailed information on participating programs and the steps to take advantage of them via the Internet and other platforms.

Normally, students must complete their applications for study abroad at least two months in advance to secure housing and other preparations. Visa application may also be required, depending upon the student’s destination. Additionally, students must sometimes certify their language ability through TOEFL or other English language test scores, depending on where they will be studying abroad.

When planning to study abroad, students should thoroughly consult the class academic advisor for their major prior to applying, and carefully lay out their plans at an early stage to avoid impediments to earn credit for coursework or their academic career.

Students may sometimes submit coursework from study abroad to earn credit requirements for graduation, via the procedure for approving credits after returning to the university.

However, earned credits are counted towards the upper credit limit for a single academic year; students should take this into account when registering courses. Please check with the Academic & Student Affairs Section of the Science and Engineering Center for credit approval procedures, and complete all necessary steps within the prescribed time period.

3) Program overview: long-term study abroad and short-term study abroad

(1) Long-term study abroad (one semester / one year)

(i) Exchange Programs (EX)

These are programs where students go abroad to study based on the exchange agreements between the universities or the departments. The term is one academic year in principle, but there are also programs whose term is one semester. Relatively high-level language skills are required from the beginning, and usually, students will take ordinary courses with local students. However, there are some programs where they mainly focus on studying a foreign language. Usually, the number of students recruited is one to three per university. In principle, tuition is paid to Waseda, and students will be exempted from paying tuition to the host university. Please check the latest information about application details on the website of CIE.

(ii) Customized Study Programs (CS)

These are programs where students participate in the curriculum prepared for students from Waseda by the host university. There are roughly two types of programs. One is the programs where students may take ordinary courses from the beginning. The other is the programs where, while mainly focusing on studying a foreign language, students will at the same time follow a curriculum prepared based on a certain theme if their level of the foreign language is adequate to do so. The term is one academic year in principle, but there are also programs whose term is one semester. In principle, students will be exempted from paying tuition to Waseda, and will be paying a designated program fee to the host university.

(iii) Double Degree Programs (DD)

These are programs where students go abroad to study at a university which provides a curriculum for a double degree while they are still enrolled at Waseda. If students satisfy certain requirements, they will be able to earn designated degrees from both Waseda and their host university upon graduation. In order to complete the double degree course at the host university, students will need to demonstrate high-level reading/listening comprehension skills and conversation skills in the foreign language. Therefore, especially rigorous examinations will be conducted regarding the student's language skills if they wish to participate. There are some programs where only students of certain

Schools or Graduate Schools are eligible to apply. Furthermore, the study abroad period may vary depending on the program.

(2) Short-term study abroad (several weeks)

The Faculty of Science and Engineering and the CIE provide short-term study abroad programs during long school breaks. In these programs, students will learn the local language, culture and customs for a short period of time. Please contact each office for more information.

(3) Other study abroad programs

Studying abroad without receiving any scholarship, or at the student's own expense, including living expenses, by gaining entry-permission from a university or a language-learning institution of their choice is called privately financed overseas study. For privately financed overseas study, students will have to go through the required procedures on their own or through an overseas study agency. Check how your registration status at Waseda University and tuition and fees are treated, which will depend on your particular case, with the Center for Science and Engineering. There are cases when study abroad programs conducted by individual departments recruit applicants on the bulletin board of each School / Department.

16 Nonsmoking Campus

The following rules on separation of smoking areas in the Nishi-Waseda Campus have been established in accordance with the enforcement of the Health Promotion Law, which advocates the prevention of passive smoking (second-hand smoke), the notice regarding smoking issued by the Ministry of Education, Culture, Sports, Science and Technology, the ordinance regarding smoking on the street enacted by Shinjuku Ward, and the decision of the Executive Board on thorough separation of smoking areas. Observe these rules strictly. Also observe manners and rules on smoking on the street on the way to and from school. Students should act with an awareness of being a student of Waseda University.

- (i) Smoking in public places is prohibited including classrooms, seminar rooms, laboratories, meeting rooms, lounges, foyers, atriums, libraries, students' reading rooms, CO-OP facilities, yards, corridors, stairs, passages, elevators, rest rooms and in open-air spaces, except for designated smoking areas.
- (ii) Smoking is prohibited in laboratories and other places where seminars or student guidance is given, which are considered as classrooms.
- (iii) Smoking while walking, and cigarette littering are strictly prohibited.

17 Ban on Commuting by Bicycle, Motorcycle or Car

As a rule, students are prohibited from riding and parking a bicycle or driving a motorcycle or car into the Nishi-Waseda Campus. Since parking on streets around the campus is prohibited around the clock, commuting by bicycle, motorcycle, or car is prohibited. Bicycles can be used only under special circumstances; inquire the General Affairs Section in the Center for Science and Engineering for details.

We have received many complaints from nearby residents about bicycles, motorcycles, and cars parked on the street in front of the main gate or in the walkways on the side of Meiji Dori and have been warned strictly by the local police stations repeatedly. This nuisance parking has caused traffic accidents. Be sure to observe these rules strictly. Do not think that you are an exception, but act with an awareness of being a student of Waseda University.

18 Library

Waseda University Library consists of more than 20 libraries and reading rooms. Undergraduate students can take out books from 12 libraries. A complete explanation about the services can be found on the Library website: <https://www.waseda.jp/library/en/>. Please check the newest information on that website. Library materials can be searched through WINE: <http://wine.wul.waseda.ac.jp/search/>. By using the “View Your Records” function of WINE, students can check the status of borrowed books or renew the due dates.

Waseda University Library has made a contract with many databases, such as online journals and e-books, not only physical materials (books, journals, newspapers, audio-visual materials, etc.). Students can access these online materials through Waseda E-Resource Portal: <http://www.wul.waseda.ac.jp/imas/index-e.html>. If you want to access them from outside the university, please access via Off-Campus Access: <https://www.wul.waseda.ac.jp/remote/index-e.html>

Nishi-Waseda Campus has the Science and Engineering Students’ Reading Room and Science and Engineering Library. Notes on each feature and its use are as follows:

(1) Science and Engineering Students’ Reading Room (Building 52, B1F)

The Room is mainly for undergraduate students, providing Japanese books centered on science and engineering fields along with curriculum. It holds multiple copies for frequently used books.

(2) Science and Engineering Library (Building 51, B1F)

This is a research library holding many journals and reference books both in Japanese and foreign languages in the field of science and engineering. We have introduced online versions of journals and books as much as possible. Students can use online journals through the Waseda University e-Journal e-Book List: <http://tm3xa4ur3u.search.serialssolutions.com/?paramdict=en-US>. Textbooks for EBSE courses are located in the IPSE/EBSE corner, and can be used inside the library.

(3) Notes on use

(i) Service hours during the semester

Monday through Friday: 9:00-21:00 Saturday: 9:00-19:00

For summer, winter and spring vacations, please check service days and hours on the website.

(ii) Carry your student ID card at all times. If you forget it, you cannot use any library.

(iii) Learning Assistant Desk is located in the Students' Reading Room. LAs are graduate students, and they can assist your learning and answer your questions about library services.

(iv) Smoking, chatting, eating and talking on mobile phones are prohibited inside the library.

(v) Please handle all library materials with care and be careful not to damage or get them wet. If library materials are lost or damaged, students will be asked to compensate for them. Strict measures will be taken for malicious violations such as stealing library books, writing, underlining and marking library material, or cutting or tearing pages out of books.

(vi) When books are not returned by the due date, a penalty of 1 point per day per book will be applied. User's library privileges are suspended for 14 days for every 50 penalty points.

(vii) Please observe the rules in "User instructions for databases, electronic journals, etc.": https://www.wul.waseda.ac.jp/db/db_notice.html

(viii) Some of the journals are located at the Honjo Deposit Library in Saitama Prefecture.

(ix) When you have questions on how to use library, please search the library website first, then use an online reference or ask at a counter if it is still not clear.

MyWaseda ⇒ Research ⇒ Library Online Request ⇒ Online References

19 Computer Rooms

Nishi-Waseda Campus has about 700 computers which are mainly for classes. These computers can also be used for preparing reports or for browsing Internet sites unless they are being used for a class.

3rd floor of Building 63

Name	Capacity	Available OS				Remarks
		Win (J)	Win (E)	Linux	MacOS X	
Room A	80 people	○	○	○	—	Standard computer room (island type)
Room B	80 people	○	○	○	—	
Room C	100 people	○	○	○	—	
Room D	48 people	○	○	—	○	Standard computer room (classroom type) Equipped with iMac
Room E	50 people	○	○	—	○	
Room F	48 people	○	○	○	—	Computer room designed for foreign language classes (classroom type)
Room G	48 people	○	○	○	—	
GroupWork Space	10 people	—	—	—	—	Wireless Presentation System

Others

Name	Capacity	Available OS	Location
Drafting/CAD room	222 people	Windows (Japanese)	1st floor of Building No. 57

The availability of computer rooms can be checked in the information panels which are placed at 1st and 3rd floor of Building 63 and the website of the Media System Support Section.

<https://www.waseda.jp/mse/web/en/pcroom/>

Consultation service

A help desk is located on the south side of the 3rd floor of Building 63, which provides a consultation service concerning school information accessibility and services.

63号館3階 情報フロアマップ / Third Floor Map at Building 63



○ Using Windows

Windows can be used in all of the computer rooms. Word, Excel, PowerPoint, science and engineering software, and software development environments are available.

○ Using Linux

A Linux environment can be accessed from computer rooms A, B, C, F and G. Linux environments are mainly used in classes in programming languages, algorithms, and numerical analysis. To use a Linux environment, students must apply for use through the Science and Engineering School Students website of MyWaseda.

○ Using MacOS X

MacOS X environment can be accessed from computer rooms D and E. Word, Excel, PowerPoint, Photoshop and Illustrator are available.

○ Using computers with foreign language learning equipment

Computers in rooms F and G are equipped with a headset, with which students can use a foreign language learning support system (CALL system). These are mainly used in foreign language classes and in self-directed learning.

20 Experimental Facilities

(1) Common laboratories

Nishi-Waseda Campus and Building 50 (TWIns) have educational experiment facilities used for basic laboratory courses to be taken by first, second and third year students and for specialized laboratory courses provided by different departments. These facilities are shared among different departments and are called “common laboratories.” Educational experiments are mainly conducted in these laboratories, but facilities in these laboratories are also widely used for research activities.

Laboratories for basic experiments in Science and Engineering	Laboratories for basic experiments in science and engineering are used for the “Science and Engineering Laboratory 1” and “Science and Engineering Laboratory 2” courses. Laboratories for basic experiments in science and engineering consist of 4 laboratories for different fields of academic study: laboratory for basic physical experiments, laboratory for basic chemical experiments, laboratory for basic bioscience experiments and laboratory for basic engineering experiments.
Laboratory for basic physics experiments: Building 56, 2F	This laboratory is used for the basic physics experiments of the “Science and Engineering Laboratory 1” course. Students can learn the basics of physics through creative and unique experiments based on production.
Laboratory for basic chemistry experiments: Building 56, 3F	This laboratory is used for the basic chemistry experiments of the “Science and Engineering Laboratory 1” and “Science and Engineering Laboratory 2” courses. Students can learn the basic knowledge and experimental methods for chemistry such as synthesis, extraction, and analysis.
Laboratory for basic bioscience experiments: Building 56, 3F	This laboratory is used for the basic bioscience experiments of the “Science and Engineering Laboratory 1” course. Students can learn the basics of bioscience through observation of cells and extraction of DNA.
Laboratory for basic engineering experiments: Building 63, B1F east side	This laboratory is used for the basic engineering experiments of the “Science and Engineering Laboratory 2” courses. Students can learn advanced and practical basic engineering technologies through operation of scanning electron microscopes and automatic computer measurement.
Materials laboratory: Building 59, 1F east side	Strength tests or physical property tests of structural materials (metals, wood, concrete, etc.) and specialized experiments for evaluating the strength of structures are conducted.
Machining laboratory: Building 59, 1F west side	This laboratory is used for machine shop practice using machines. Students can receive guidance on machining and machines or experimentally produce laboratory equipment or parts.
Thermal engineering laboratory, fluid engineering laboratory and control engineering laboratory: Building 58, 1F	Specialized experiments on thermal engineering, fluid engineering, or control engineering are conducted in these laboratories. In the fluid engineering laboratory, specialized experiments on hydraulics or water quality are also conducted.
Drafting/CAD room: Building 57, 1F	In this room, which is equipped with about 400 drafters (drafting tables), laboratory training on the basics of drafting or computer-aided design and drafting exercises are conducted.
Survey practice room: Building 61, B1F	Laboratory training on surveys using various types of surveying equipment is provided. This room is also used for photo survey-based reading of changes in the natural environment or measurement, archaeological research or other research.

Electrical engineering laboratory: Building 63, B1F west side	Specialized experiments in the fields of electricity/electronics and information communications are conducted. Technical support on making measurements of voltage, current, or magnetic fields, or on building of circuits is also provided.
Chemical analysis laboratory: Building 56, 5F	Specialized experiments in the fields of gravimetric analysis, volumetric analysis, instrumental analysis and other inorganic analytical chemistry are conducted. Students can learn an extensive knowledge of analysis ranging from the basics of classic chemical analysis to instrumental analysis using large equipment.
Physical chemistry laboratory: Building 56, 4F	Specialized experiments are conducted on chemical substances, compounds or the molecules that constitute them, based on physical methods.
Organic chemistry laboratory: Building 56, 5F	Students learn the basics of conducting organic chemistry experiments from how to use reagents, equipment, and instruments to synthesis, separation and purification of organic compounds. They deepen their understanding of organic chemistry by confirming what they have learned in lectures about reaction systems through experiments. They also acquire skills on experimental methods of organic chemistry by practicing and performing experiments repeatedly.
Bioscience laboratory: Center for Advanced Biomedical Sciences TWins Common Laboratory: Building 50, 3F	Students learn how to treat biomolecules such as genes and proteins and a wide range of bioscience techniques by conducting morphological/physiological experiments using culture/fraction of cells or biont.

(2) Shared research facilities

In the shared research facilities, large equipment and precise measuring equipment that can be shared for research are intensively managed and used in a wide variety of research activities. Seminars and technical support on the use of equipment are also provided.

Materials Characterization Central Laboratory: Building 55, South Tower, B1F	The Materials Characterization Central Laboratory is a shared research facility used for analyzing the structure of materials. This laboratory is used by fourth year students assigned to a laboratory, master's degree students, doctoral degree students and researchers for research in a wide range of fields. The laboratory, which is equipped with state-of-the-art measurement instruments for research, is also used by other universities and research institutions.
Microtechnology Laboratory: Building 55, North Tower, B1F	Semiconductor processing equipment and clean rooms are available as shared research facilities. This laboratory is used by researchers in a wide range of fields including mechanical engineering, solid-state physics, chemistry and material engineering.
Media Design Laboratory: Building 61, 3F	Image information equipment for multimedia research or preparing teaching materials is available as shared research equipment. Students can use a large color printer to prepare posters for conference presentations.
Center for Advanced Biomedical Sciences Shared Instruments Room	At TWins (Building 50), this room provides equipment for bioscience material analysis, such as centrifuge, MS, FC, DNA sequencer, real-time PCR, X-ray analysis apparatus, and gas chromatograph. It is available for use under the management of Research Support Center.

21 Health Support Center

Health Support Center

The Health Support Center was established to help students lay the groundwork for their health and acquire the ability to self-administer their mental and physical health so that they can lead a healthy school life. The Health Support Center has branches in each campus. For more details, refer to the website below:

Contact Information:	
Address	1st floor of Building 51, Nishi-Waseda Campus
Tel	03-5286-3021, 03-5286-3082 (direct line for consultation)
URL	http://www.waseda.jp/hoken/english
Office hours	Monday through Saturday 9:00 – 17:00

Services

- (i) Annual health check-ups
- (ii) Special health examinations
- (iii) Issuance of various health certificates
*Only for those who have taken - annual health check-ups
- (iv) Health consultation
Monday through Saturday 9:00-12:30, 13:30-17:00
- (v) Clinical examination by physician
Monday through Friday 13:30-15:40
- (vi) First-aid treatment and care of sick persons
*Monday through Saturday 9:00-12:30, 13:30-17:00
*In an emergency, the Health Support Center will open during the lunch break.
- (vii) Mental health consultation by special counselor for students (Room 07, 1st floor of Building 51)
Monday through Friday 9:00-12:00 , 13:00-17:00 (by appointment only)
- (viii) Other consultation

22 Special Consideration for Leave of Absence

The University has systems in place to prevent students who are on a leave of absence due to the special reasons listed below from being unfairly disadvantaged in terms of assessment. Students who fail to meet coursework requirements such as class attendance (including that for on-demand courses), submission of assignments, exam-taking should consult the office of their affiliation in order to request special academic consideration and seek advice from their course instructors. Please note that the final decision on a student's absences is left to the discretion of the instructor.

1. Bereavement Leave

- a. Scope: This policy applies to all full-time students currently in the Waseda University system.
- b. Immediate Family: Students are eligible for up to seven consecutive class-meeting days for the death of a first-degree family member (parent, child), second-degree family member (sibling, grandparent, grandchild), or spouse. (If international travel is involved, extra days may be granted.)
- c. Procedure:
 - 1) Notify the office of your affiliation within ten days of the end of the period for which consideration is sought and obtain a “Notification of Absence due to Bereavement” form.
 - 2) Promptly submit the completed “Notification of Absence due to Bereavement” form, along with appropriate documentation, such as a funeral acknowledgment card to the office of your affiliation. (In the event the deceased is your guarantor, follow the procedure for a change of guarantor.)
 - 3) Request to have the “Notification of Absence due to Bereavement” form issued by the office of your affiliation.
 - 4) Submit the “Notification of Absence due to Bereavement” form to your course instructor and seek special consideration for academic work missed during your bereavement leave. (If you are taking an on-demand course, direct your request to the affiliation offering the course.)

2. Jury Duty

- a. Scope: This policy applies to all full-time students and students from Doshisha University currently in the Waseda University system. (Students of e-learning courses in the School of Human Sciences are not included.)
N.B. College students may use their right to refuse such duty (under the right of civil law).
- b. Procedure:
 - 1) Notify the office of your affiliation with a written statement from an appropriate court official, indicating the dates and times of service and submit the completed “Notification of Absence due to Jury Duty” form.
 - 2) Submit the “Notification of Absence due to Jury Duty” form issued by the office of your affiliation to your course instructor and seek special consideration for academic work missed during your jury duty leave.

3. Infectious Disease

In order to prevent the spread of highly infectious diseases, students who have contracted any of the specified diseases will not be allowed to attend class, based on the authority of the

School Health and Safety Act. (The length of the suspension period is based on Mandatory Suspension Guidelines.)

Refer to The Health Support Center website <<http://www.waseda.jp/hoken/>> to find out more details about infection characteristics and quarantine periods.

Procedure:

- 1) Notify the office of your affiliation.
- 2) Ask your physician to fill out a designated *Certificate of Recovery from Infectious Disease Form* (学校における感染症治癒証明書) and submit it to the office of your affiliation.
- 3) Obtain and submit a “Notification of Absence due to Infectious Disease” form to the office of your affiliation and follow all instructions. Then, submit the “Notification of Absence due to Infectious Disease” form issued by the office of your affiliation to your course instructor and seek special consideration for academic work missed during your infectious disease leave.

4. Nursing Experience and Teaching Practice

- a. Scope: This policy applies to all students who are taking nursing experience or teacher-training education courses currently in the Waseda University system.
- b. Number of days: According to the training period.
Please note that special consideration will not be given if you have registered for a quarterly course.
- c. Procedure: Please follow the procedure explained in the *Teacher-Training Course Guide* and apply to your instructor for the special consideration form.

23 Class Cancellation Policy during Term

In general, during severe and dangerous weather conditions, the University will issue a directive to cancel classes (except classes on public holidays or during vacation time), postpone examinations, etc. Directives involving such contingency measures on any campus will apply to all courses and examinations taking place on the designated campus.

All affected students are expected to keep themselves informed and heed such directives. Students are advised to delay their commute or to refrain from coming to the University when their commuting routes (to the campus where their classes are taking place) are under any severe-weather warning issued by the Meteorological Agency or a “J-Alert” warning concerning a potential ballistic missile attack and they feel that commuting will endanger their safety. In such cases, the students should submit a completed “Report of Absence” form to the office of the school to which they are affiliated and ask the course instructor for due consideration regarding that absence.

■ Special Exemptions to Cancellation of Classes and Postponement of Examinations

1) On-demand classes: Directives to cancel classes do not apply.

2) Distance Learning System classes that take place simultaneously on multiple campuses:

Any Distance Learning System classes taking place on multiple campuses (Waseda, Nishi-Waseda, and Honjo) and which are directly impacted by the cancellation of classes at any of the campuses will be cancelled on a university-wide basis. However if there is a big difference between the campuses in the number of students in class, the larger class may choose to hold the class despite the circumstances. (For example, if a Waseda-campus class has 100 students and the corresponding Honjo-campus class has only 10 students, the class may take place as scheduled.)

The Art and Architecture School is included in all arrangements for the Nishi-Waseda Campus.

The arrangements do not apply to the two Senior High Schools or to the Extension School.

1. Class Cancellation due to Severe Weather

Any decision to cancel classes, postpone examinations, or enact other contingency measures due to severe weather is the responsibility of the University and will not be based solely on warnings and advisories issued by the Japan Meteorological Agency.

However, when weather conditions are severe (heavy rainfall, flooding, high winds, blizzard conditions, heavy snow, etc.) or when a warning has been issued by the Japan Meteorological Agency and a determination has been made by the University that current conditions pose a danger to the safety of students and employees, the University will enact contingency measures involving the cancellation of classes, postponement of examinations, etc. Directives involving such contingency measures on any campus will apply to all courses and examinations taking place on the designated campus.

1) If the University decides to enact contingency measures involving the cancellation of classes, postponement of examinations, etc., the University will inform all students of the decision no less than two hours prior to the start of each affected class period or examination via the communication channels shown below.

2) Based on the prevailing weather conditions during a typhoon, heavy snow, etc., where forecasts with reasonable accuracy can be made, the University may issue an emergency bulletin a day in advance to cancel classes, postpone examinations, etc. In such cases, a decision will be made by 7 p.m. and a notification posted for students via the communication channels shown below.

2. Class Cancellation due to the Occurrence of a Severe Earthquake

In the event that a severe earthquake occurs with such intensity that course instructors are not able to conduct classes safely, the following measures will be activated as soon as a decision is made by the University to cancel or postpone classes or examinations.

- 1) If a decision is made to cancel or postpone classes or examinations, notices will be posted on the University's website and other communication channels.
- 2) If a decision is made during instructional hours, an immediate announcement will be made over the campus public address system.

3. Class Cancellation in the Event of a Large-Scale Power Outage

In the event of a large-scale power outage occurring unpredictably in the wake of overwhelming demand for electricity, the University will cancel classes as follows. Classes will be resumed in the 1st Period of the day following the restoration of electric power.

- 1) If a large-scale power outage occurs during a class period (1st-7th periods):
Remain calmly inside the classroom until the situation is under control. All classes scheduled for the rest of the day will be cancelled.
- 2) If a large-scale power outage occurs outside a class period:
All classes scheduled for the day will be cancelled.

4. Class Cancellation due to Transport Strikes

Waseda, Toyama, Nishi-Waseda Campus should refer to items 1), 2), 3), and 4), below.

Tokorozawa Campus should refer to items 1), 2), 3), and 5), below

- 1) If JR or any other public transport company goes on strike (a general strike or a JR strike), the following arrangements will apply:
 - A. If the strike ends by 12 midnight of the previous day, classes will proceed as normal.
 - B. If the strike ends by 8 a.m. on the day in question, classes will start from Period 3 (1 p.m.).
 - C. If the strike does not end by 8 a.m., all classes will be cancelled.
It should be noted that the above does not apply to work-to-rule action at JR or to strikes affecting private railway companies.
- 2) If JR in the Tokyo Metropolitan area goes on a limited (local) strike, classes will proceed as normal.
- 3) If JR in the Tokyo Metropolitan area goes on a full-scale time-limited strike,
 - A. if the strike ends by 8 a.m., classes will start from Period 3 (1 p.m.).
 - B. if the strike ends by 12 noon, classes will start from Period 6 (6:15 p.m.).
 - C. if the strike continues past 12 noon, all classes will be cancelled.
- 4) If only private railways excluding JR, or the Metropolitan Transport Authority, go on strike, classes will proceed as normal.
- 5) If either the Seibu Railway Shinjuku Line or Seibu Railway Ikebukuro Line goes on strike, or even if neither of the Seibu Railway lines are on strike but both Seibu Bus and Seibu Motors go on strike, then
 - A. if the strike ends by 8 a.m., classes will start from Period 3 (1 p.m.).
 - B. if the strike continues past 8 a.m., all classes will be cancelled.

24 Method of Contact in Case of an Emergency

Waseda University will make emergency announcements through the Emergency Communication System, as outlined below.

- 1) Waseda Mail
- 2) Waseda University Emergency Bulletin Website:
<https://emergency-notice.waseda.jp/>

The same information can be accessed via the following channels.

- 1) MyWaseda: <https://my.waseda.jp/>
- 2) Waseda University Website: <https://www.waseda.jp/>
- 3) Waseda University official Twitter: https://twitter.com/waseda_univ
- 4) Waseda University official Facebook: <https://www.facebook.com/WasedaU>

V

Appendix

1 Alma Mater

2 List of URLs and Telephone Numbers

3 Campus Map

1 Alma Mater

早稲田大学校歌

Moderato

相馬 御風 作詞
東儀 鉄笛 作曲

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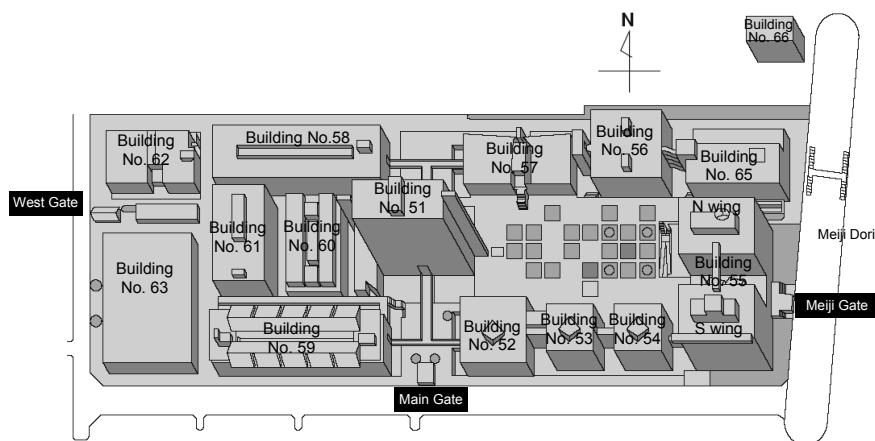
- 一、都の西北 早稲田の森に
聳ゆる麓はわれらが母校
われらが日ごろの抱負を知るや
進取の精神 学の独立
現世を忘れぬ 久遠の理想
かがやくわれらが行手を見よや
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わせた わせた わせた
- 二、東西古今の文化のつしほ
一つに渦巻く大島国の
大なる使命を担ひて立てる
われらが行手は 窮り知らず
やがても久遠の理想の影は
あまねく天下に輝き布かん
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わせた わせた わせた
- 三、あれ見よかしこの常盤の森は
心のふるさとわれらが母校
集まり散じて人は変れど
仰ぐは同じき理想の光
いざ声そろへて 空もとどろに
われらが母校の名をばたたへん
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2 List of URLs and Telephone Numbers

If you cannot find an answer to your question in the bulletin or website, contact the following:

Inquiry	Contact	Telephone number	URL and E-mail address
Consult individually about study and courses required for graduation, etc	Class academic advisor		https://www.waseda.jp/fsci/en/students/counter/#anc_4
Course registration Examinations & Grades Certificates Tuition and fees Scholarships School register (study abroad, leave of absence, withdrawal and re-admission) VISA Student clubs and activities	Office of the Faculty of Science and Engineering (Academic and Student Affairs Section)	03-5286-3002	gakumu@sci.waseda.ac.jp
Entrance examinations Transferring to another department Details about research of faculty members	Office of the Faculty of Science and Engineering (Admissions Office)	03-5286-3808	undergraduate@sci.waseda.ac.jp
Notices on campus Bicycle parking Management and reservation of meeting rooms TA Various research subsidy programs	Office of the Faculty of Science and Engineering (General Affairs Section)	03-5286-3000	soumu@sci.waseda.ac.jp
How to use MyWaseda	Waseda University IT Service Navigation	03-5286-9845	http://www.waseda.jp/navi/e/index.html
Computer Room and IT related matters	Media Center IT Help Desk	03-5286-3355	http://www.waseda.jp/mse/web/en/
Renovation/ Electrical work in labs Safety measures during the research activities, etc	Technology Planning Section	03-5286-3050	http://www.tps.sci.waseda.ac.jp/
Injury and sickness	Nishi-Waseda branch of the Health support center	03-5286-3021	http://www.waseda.jp/hoken/english
Shuttle bus schedule	Faculty of Science and Engineering website	03-5286-3000	https://www.waseda.jp/fsci/en/access/
Libraries	Science and Engineering Library	03-5286-3889	https://www.waseda.jp/library/en/libraries/sci-eng/
CO-OP	CO-OP of Waseda University	03-3200-4206	info@wcoop.ne.jp
Advice on immigration formalities	Center for International Education	03-3203-9806	cie@list.waseda.jp https://www.waseda.jp/inst/cie/en
Extracurricular activities and event for international students	International Community Center	03-5286-3990	icc@list.waseda.jp https://www.waseda.jp/inst/icc/en/
Career individual consultation	Career Center	03-3203-4332	career@list.waseda.jp https://www.waseda.jp/inst/career/en/
Other inquiries	Office of the Faculty of Science and Engineering	03-5286-3000	info@sci.waseda.ac.jp

3 Campus Map

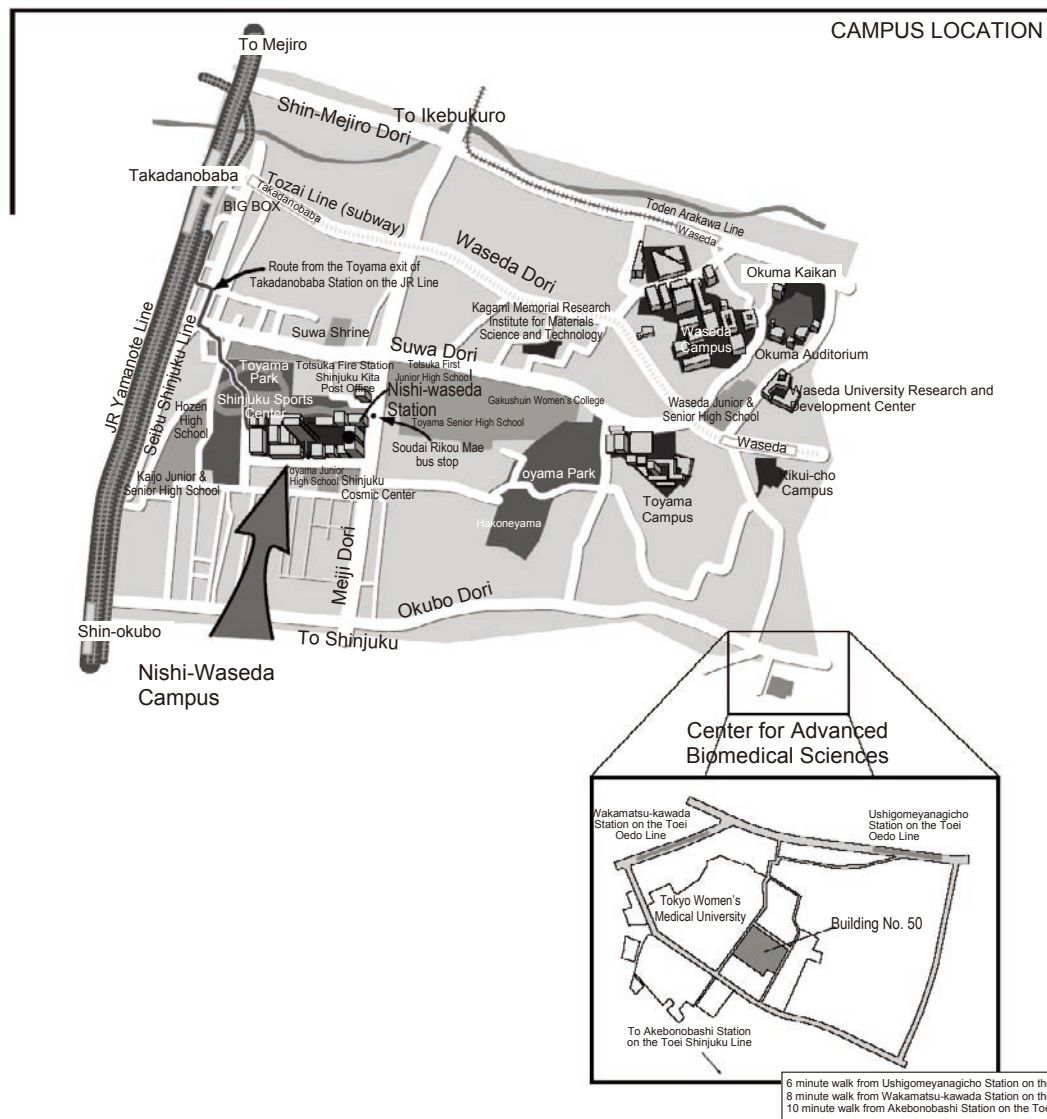
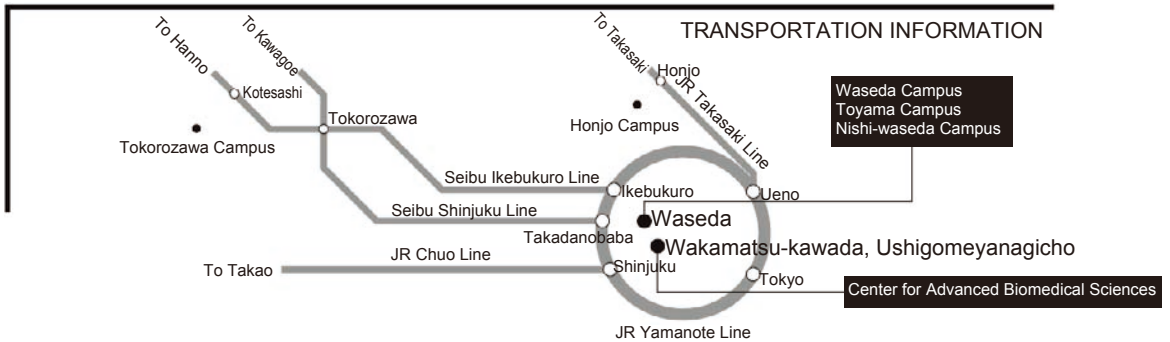


Media System Support Section Help Desk 3rd floor of Building No. 63	WASEDA Monodukuri koubou 1st floor of Building No. 61	Laboratory for basic experiments in science and engineering (Chemistry, Bioscience) Building No. 56	Office of the Faculty of Science and Engineering 1st floor of Building No. 51
Computer Rooms A to G 454 personal computers 3rd floor of Building No. 63	Career Information Room 1st floor of Building No. 61	Laboratory for basic experiments in science and engineering (Physics) 2nd floor of Building No. 56	Health support center Nishi-Waseda branch Student Counseling Room 1st floor of Building No. 51
Rikoh Restaurant 1st floor of Building No. 63	Drafting/CAD Room 208 personal computers 1st floor of Building No. 57	Rikoh Cafeteria basement 1st floor of Building No. 56	Student Lounge 2nd floor of Building No. 51
Laboratory for basic experiments in science and engineering (Engineering) 1st basement of Building No. 63	CO-OP school store and book store 1st basement of Building No. 57	Students' Reading Room 1st basement of Building No. 52	Science and Engineering Library 1st basement of Building No. 51

List of the offices of departments

Fundamental Science and Engineering	Creative Science and Engineering	Advanced Science and Engineering
Department of Mathematics Room 01, 1st floor of Building No. 63	Department of Architecture Room 03, 2nd floor of N wing of Building No. 55	Department of Physics Room 03, 2nd floor of N wing of Building No. 55
Department of Applied Mathematics Room 01, 1st floor of Building No. 63	Department of Modern Mechanical Engineering Room 08, 2nd floor of Building No. 60	Department of Applied Physics Room 03, 2nd floor of N wing of Building No. 55
Department of Applied Mechanics and Aerospace Engineering Room 08, 2nd floor of Building No. 60	Department of Industrial and Management Systems Engineering Room 00, 13th floor of Building No. 51	Department of Chemistry and Biochemistry Room 03, 2nd floor of N wing of Building No. 55
Department of Electronic and Physical Systems Room 01, 1st floor of Building No. 63	Department of Civil and Environmental Engineering Room 07B, 2nd floor of Building No. 51	Department of Applied Chemistry Room 03, 2nd floor of N wing of Building No. 55
Department of Computer Science and Engineering Room 01, 1st floor of Building No. 63		Department of Life Science and Medical Bioscience 3rd floor of Building No. 50 Office of the Center for Advanced Biomedical Sciences 2-2, Wakamatsu-cho, Shinjuku-ku, 162-8480
Department of Communications and Computer Engineering Room 01, 1st floor of Building No. 63	Department of Resources and Environmental Engineering 13th floor of Building No. 51	Department of Electrical Engineering and Bioscience Room 03, 2nd floor of N wing of Building No. 55
Department of Intermedia Art and Science Room 01, 1st floor of Building No. 63		
	Center for English Language Education in Science and Engineering 2nd floor of Building No. 51	
	International Center for Science and Engineering 2nd floor of Building No. 51	

NISHI-WASEDA CAMPUS





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