



Tokyo Tech

GSEP 2024 Orientation for 2nd year students (23B)

2024/04/04
GSEP Faculty

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Welcome back to the campus!

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Welcome to TSE Department!

- Some numbers about TSE
- Educational philosophy of TSE
- Curriculum and required for graduation
- Timetable for Q1 and Q2
- Ethics education
- Bulletin board/Internal website
- Measures to COVID-19
- TSE Lounge/Locker
- B2D scheme

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Students

- **New 2nd year students: 54**
 - Japanese students + international students : 43
 - **GSEP: 11**

Faculty

Primary appointment faculty: 56 (2024.4.1)

- Professor 22, Associate Professor 17, GSEP
Lecturer 3, Assistant Professor 14

Staff: 3 (@Ishikawadai 4 Bldg. 104)

Faculty List : <https://educ.titech.ac.jp/tse/> (Including secondary faculty)

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Vision of TSE

Pioneering new fields and solving global problems with knowledge from science and technology

Transdisciplinary science and engineering is a way of study where researchers go **beyond the boundaries of academic fields to solve the complex problems** shared by global society as a whole. **The Department of Transdisciplinary Science and Engineering is a fusion of a wide range of fields** — chemical engineering, mechanical engineering, electrical and communications engineering, civil engineering, biological engineering, encompassing even environmental policy and planning, applied economics, sociology, translation studies, and applied linguistics. Students acquire **practical skills — not simply academic knowledge**.

Specifically, our goal is to train **individuals as global scientists and engineers** with the following abilities: **ability to contribute to the innovation of novel technology, values, and concepts needed by society** (ability to define and solve problems, creative thinking and the ability to carry out projects); **to communicate with engineers in other fields with a global perspective and co-create**; and **to manage complex and large-scale projects and organizations**.

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Vision of TSE

Specific action:

To establish **“Transdisciplinary Research”** as a new educational and research framework with the primary purpose of solving complex social problems through **interdisciplinary approaches** that transcend those of current individual research fields.

- Issues/problems that cannot be solved through single discipline
⇒ **Transdisciplinary**
- Issues that cannot be solved by one region/nation and has significant global impacts
⇒ **Global engineering**

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Competencies

Basic abilities with a wide range of applications

- Logical and mathematical thinking and analytical skills
- Comprehension of physical and natural phenomena
- General-purpose measuring and computation techniques

Applied abilities unhindered by existing academic fields

- Ability to solve given problems using suitable methods
- Ability to comprehend systems and operate them

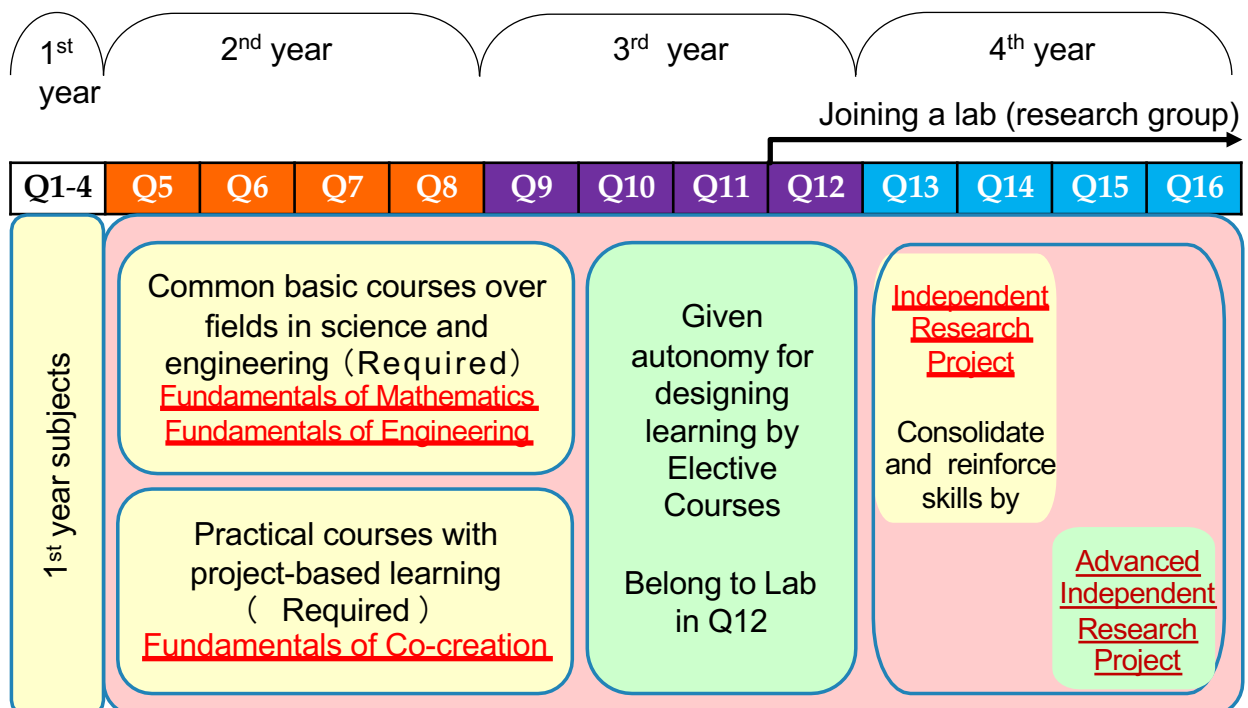
Personal and social skills required as a global engineer

- Communication skills
- Sense of social responsibility and ethics
- Autonomy, ability to execute projects

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TSE Curriculum (Undergraduate)



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TSE Curriculum

100番台 | 100-Level

200番台 | 200-Level

300番台 | 300-Level

線形代数学第一 Linear Algebra I
線形代数学演習第一 Linear Algebra Recitation
微積分学第一 Calculus I
微積分学演習第一 Calculus Recitation I
力学基礎 1・2 Fundamentals of Mechanics 1 / 2
電磁気学基礎 1・2 Fundamentals of Electromagnetism 1 / 2
量子化学基礎 Basic Quantum Chemistry
無機化学基礎 Basic Inorganic Chemistry
有機化学基礎 Basic Organic Chemistry
化学熱力学基礎 Basic Chemical Thermodynamics
生命化学基礎第一・2 Fundamentals of Life Science 1 / 2
類専門科目 1~4 School type subjects
数理基礎群 FUNDAMENTALS OF MATHEMATICS
常微分方程式と物理現象 Ordinary Differential Equations and Physical Phenomena
偏微分方程式と物理現象 Partial Differential Equations for Science and Engineering
線形システム論 Theory of Linear Systems
統計とデータ解析 Statistics and Data Analysis

工学基礎群 FUNDAMENTALS OF ENGINEERING
材料・物性工学基礎 Material and Molecular Engineering
固体・構造力学基礎 Solid Mechanics and Structural Engineering
電気・電気工学基礎 Electrical Engineering
熱力学基礎 Engineering Thermodynamics
流体工学基礎 Fluid Engineering
生物学基礎 Biological Engineering
工学計測基礎 Engineering Measurement
融合理工学実験A Transdisciplinary Engineering Experiments A
融合理工学実験B Transdisciplinary Engineering Experiments B
共創基盤群 FUNDAMENTALS OF CO-CREATION
融合理工学基礎 Introduction to Transdisciplinary Science and Engineering
システムデザインプロジェクト System Design Project
融合理工学プロジェクト Transdisciplinary Design Project
システムデザイン&アセスメント System Design & Impact Assessment
プロジェクトマネジメント Project Management

専門科目群 ELECTIVE COURSES
融合理工学とデータサイエンス(I) Data Science for Transdisciplinary Research (I)
融合理工学とデータサイエンス(II) Data Science for Transdisciplinary Research (II)
プログラミングと数値解析基礎 Programming and Numerical Analysis
プログラミングと数値解析応用 Applied Programming and Numerical Analysis
通信とネットワーク Communications and Networks
電磁気学(融合理工) Electromagnetics (TSE)
環境流体工学基礎 Basis of Environmental Hydrodynamics
防災工学基礎 Introduction to Natural Disaster Science and Engineering
剛体の運動力学 Rigid Body Dynamics
強度の力学 Mechanics of Strength
操作論 Unit Operations
工業化学 Industrial Chemistry
実用材料の冶金学基礎 Introduction to Metallurgy of Engineering Materials
原子核工学概論 Introduction to Nuclear Engineering
原子核工学基礎 第1~第4 Basic Nuclear Engineering 1-4
社会環境政策概論 Introduction to Environmental Policy and Social Systems
水・物質循環システム概論 Introduction to Water and Mass Transport in the Environment
気象学基礎 Introduction to Meteorology

地球・地域生態学概論 Introduction to Global and Local Ecology
地域・地球環境概論 第1&第2 Basic Theory of Regional and Global Environment 1 and 2
国際開発共創概論 Introduction to International Development
開発経済学入門 Introduction to Development Economics
融合理工学 Methodology of Transdisciplinary Research: Theory and Practice
エンジニアリングデザイン概論 Introduction to Design Engineering
国際エンジニアリングデザインプロジェクト基礎F&S International Engineering Design Experience (Fall Semester and Spring Semester)
エンジニアリングデザインと技術経営概論 Introduction to Engineering Design and Management of Technology
エネルギーシステム設計基礎 Foundations of Energy Systems Design
資源・エネルギー工学概論 Theory of Resource and Energy Engineering
エネルギーと環境(融合理工) Energy and Environment (TSE)
特定課題研究/特定課題研究プロジェクト など RESEARCH OPPORTUNITIES AT LABORATORIES, INDEPENDENT RESEARCH PROJECTS, INTERNSHIPS, ETC.
研究プロジェクト(融合理工学系) Research Opportunities at Laboratories (TSE)
学士特定課題研究(融合理工学系) Independent Research Project (TSE)
学士特定課題プロジェクト(融合理工学系) Advanced Independent Research Project (TSE)
国際プロジェクト演習 Exercises in International Development Engineering
融合理工学海外研修 International Training in Transdisciplinary Science and Engineering
融合理工学インターンシップ Transdisciplinary Science and Engineering Internship

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Elective course groups at TSE (approximate categories, not definitive)

- International Development Courses
- Resource and Energy Engineering Courses
- Environmental Policy and Social Systems Courses
- Global and Regional Environment Courses
- Engineering Science and Design Courses
- Nuclear Engineering Courses.

Graduate courses in TSE (for your reference)

Deepening study fields at TSE department

- Global Engineering for Development, Environment and Society (GEDES)

Interdisciplinary fields under multiple departments

- Nuclear Engineering
- Engineering Sciences and Design
- Energy Science and Engineering



東京工業大学
環境・社会理工学院
融合理工学系

Recent Topics in Independent Research Project (IRP)

Students graduated in March 2024

Image Captioning for Low Resource Language: Case Study for Mongolian
Advisor: Nohara Kayoko

Prototyping of Largely Tilted Multi-Beam Type Gripper by Molding PDMS on Stacking Triangular-Shaped Glass-Plates
Advisor: Takahashi Kunio

SIMULATION AND ANALYSIS OF ATMOSPHERIC TURBULENCE DURING TROPICAL STORMS IN CENTRAL VIETNAM
Advisor: Kanda Manabu

Content analysis of strategic environmental assessment in the United States
Advisor: Murayama Takehiko

Discover Program
Overview & curriculum

Application Process
Selection process, requirements and important dates

Student Life
Academic calendar, campus map & accommodation

(Source: GSEP website. <https://www.tse.ens.titech.ac.jp/~gsep/research/irp-topics/>)

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Additional references pertaining to undergraduate education

https://www.titech.ac.jp/english/education/features/flexible_study.html

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New course "Biological Science" to be offered in 3Q 2023

Please be announced that a new course, titled "Biological Science" will be offered in 3Q this year by Dept. of Life Science and Technology at Tokyo Tech and it is expected that GSEP students can earn credits from this course:

LST.A Biological Science

Outline of This Course

The subject provides a basic understanding of living organisms from the molecular, metabolic, and cellular levels, as well as an overview of practical applications such as bioengineering, genetic engineering and medical science, to acquire the fundamentals of biological science.

Latest Updates

Serenade of the Winter Night
JANUARY 25TH, 2024

GSEP Newsletter vol.3
DECEMBER 19TH, 2023

"Career Insights for Your Long
Career Path"
- Invited Talk by Dr. Ken Harada
OCTOBER 26TH, 2023

Tokyo Tech's Meister made a
comeback at "Birdman Rally"
OCTOBER 17TH, 2023

GSEP Newsletter vol.2
SEPTEMBER 26TH, 2023

(Source: GSEP website. <https://www.tse.ens.titech.ac.jp/~gsep/2023/06/08/new-course-biological-science-to-be-offered-in-3q-2023/>)

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Notifications for timetables and completing courses

Timetables (On-campus website) : <http://www.tse.ens.titech.ac.jp/en/>

- Please complete courses as recommended timetables
- It is possible to take 200s in other departments. However, this is recommended for 3rd years so that priority should be given to TSE 200s subjects.
- Laboratory assignments for "Independent Research Project (IRP)" will be given by GPT ranking. Details will be explained at 3rd year orientation.
- Note that after completing IRP, students are also required to take Advanced Independent Research Project (A-IRP).

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Lecture schedule in 2024

Spring Semester 2024

First Quarter Classes: April 6-May 27, May 30-June 1

April 4-April 5	Preparation period for classes
May 2	Monday classes will be held
May 25	No classes due to Homecoming Day
May 28-29, June 3-8	Quarter-end exams and makeup classes for 1Q *Jun 4,5: Preparatory day for courses that hold weekly classes

Second Quarter Classes: June 10-July 29

July 30-August 6	Quarter-end exams and makeup classes for 2Q *August 6: Preparatory day for courses that hold weekly classes
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● Summer break: August 7-September 30

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Fall Semester 2024

Third Quarter Classes: October 3-November 21,23,25-27

October 2	Preparation period for classes
October 17	Monday classes will be held
November 2-5	No classes due to Tokyo Tech Festival
November 23	Saturday classes will be held
November 22,28-December 5	Quarter-end exams and makeup classes for 3Q *November 29,December 5: Preparatory day for courses that hold weekly classes

Fourth Quarter Classes: December 6-27

● Winter break: December 28-January 3, 2025

● Classes in 2025: January 4-February 3

January 17,18	No classes will be held due to University Admission Common Test (大学入学共通テスト) and preparation
February 4-12	Quarter-end exams and makeup classes for 4Q *February 12: Preparatory day for courses that hold weekly classes

● Spring break: Starts February 13

(Source: Tokyo Tech website.

<https://www.titech.ac.jp/english/student/students/life/schedules>)

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Course work timetables for 1Q

1st Quarter 2024 (For GSEP 2nd Year Students)

(Last updated Mar 18, 2024)

Time	Mon	Tue	Wed	Thu	Fri	Intensive
8:50 9:40 10:30	1 Ordinary Differential Equations and Physical Phenomena TSE.M201-01 2 credits A. Varquez, H. Takasu S3-206, GSIC PC room					
	2 A. Varquez, H. Takasu S3-206, GSIC PC room			Ordinary Differential Equations and Physical Phenomena TSE.M201-01 2 credits A. Varquez, H. Takasu S3-206, GSIC PC room		
10:45 11:35 12:25	3 Engineering Thermodynamics TSE.A204-01 2 credits S. Boonyubol I3-203		Introduction to Transdisciplinary Science and Engineering TSE.C201 1 credit N. Abe I6-404 Commons room	Engineering Thermodynamics TSE.A204-01 2 credits S. Boonyubol I3-203		
	4 S. Boonyubol I3-203					
12:25 13:30	Lunch					
13:30 14:20 15:10	5 English Presentation Seminar 5 LAE.E241 1 credit Page Anthony M-119	Special Lecture : Art and Society LAH.H219 1 credit A. Ito M-8104	Japanese 5 [GSEP] LAJ.J201-04 1 credit Y. Yoshizawa W9-202	System Design Project TSE.C202 1 credit T. Ohashi, S. Saito et al. I5 Design Lab.		
	6 Page Anthony M-119					
15:25 16:15 17:05	7 Statistics and Data Analysis TSE.M204-02 2 credits S. Hanaoka, S. Choi S4-202	Statistics and Data Analysis TSE.M204-02 2 credits S. Hanaoka, S. Choi S4-202		Statistics and Data Analysis TSE.M204-02 2 credits S. Hanaoka, S. Choi S4-202		
	8 S. Hanaoka, S. Choi S4-202					

Note
* When choosing English courses, you should try to take the similar course in both 1Q and 2Q, or 3Q and 4Q

Course Registration Period
Thursday, April 4, 2024 9:00 ~ Friday, April 19, 2024 13:00

Color Code
TSE (Compulsory)
TSE
Basic Science & Tech. (Compulsory)
Basic Science & Tech.
English
Japanese
Humanities & Social Science
Breadth
Other Dept.

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Course work timetables for 2Q

2nd Quarter 2024 (For GSEP 2nd Year Students)

(Last updated Mar 18, 2024)

Time	Mon	Tue	Wed	Thu	Fri	Intensive
8:50 9:40 10:30	1	Introduction to International Development TSE.C301 2 credits N. Abe, et al I6-404 Commons room			Introduction to International Development TSE.C301 2 credits N. Abe, et al I6-404 Commons room	
			Solid Mechanics and Structure Engineering TSE.A202-01 2 credits S. N. Mehdad S4-202			
10:45 11:35 12:25	3 Theory of Linear System TSE.M203-01 2 credits T. Ohashi S3-207			Theory of Linear System TSE.M203-01 2 credits T. Ohashi S3-207		
	4 T. Ohashi S3-207					
12:25 13:30	Lunch Break					
13:30 14:20 15:10	5 English Presentation Seminar 6 LAE.E242 1 credit P. Anthony M1-119		Japanese 6 [GSEP] LAJ.J202-04 1 credit Y. Yoshizawa W9-322			
	6 P. Anthony M1-119					
15:25 16:15 17:05	7 Engineering Measurement I TSE.A232 1 credit Y. Tohru S1-101	Partial Differential Equations for Science and Engineering TSE.M202-01 2 credits A. Varquez W9-322, GSIC PC room			Partial Differential Equations for Science and Engineering TSE.M202-01 2 credits A. Varquez W9-322, GSIC PC room	
	8 Y. Tohru S1-101					

Note
* When choosing English courses, you should take try to take the similar course in both 1Q and 2Q, or 3Q and 4Q
** There are limited seats for this course (because this is not a TSE course)

Course Registration Period
Thursday, April 4, 2024 9:00 ~ Friday, April 19, 2024 13:00


Color Code
TSE (Compulsory)
TSE
Basic Science & Tech. (Compulsory)
Basic Science & Tech.
English
Japanese
Humanities & Social Science
Breadth
Other Dept.

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University-wide requirements (continued)

Other major courses		Determined for each standard curriculum	Determined for each standard curriculum
Total	31 credits above * The upper limit for the required courses and restricted elective courses in humanities and social science courses described above is 5 credits, the upper limit for required English language courses is 4 credits, and the upper limit for required basic science and technology courses is 14 credits.	110 credits or more that satisfy the above requirements	124 credits or more that satisfy the above requirements

See next slide 

Note: Credits attained from the Japanese language and culture courses, teacher education courses, and some global awareness and other breadth courses do not count toward the minimum of 31 credits required to be eligible for department affiliation. (Credits from the wellness courses can be counted as part of the required credits.)

Credits attained from the teacher education courses do not count toward the minimum of 110 credits required to be eligible for the independent research project or the minimum of 124 credits for graduation eligibility. (Credits from the wellness courses, global awareness and other breadth courses, and Japanese language and culture courses can be counted as part of the required credits.)

Please check the following pdf for the GSEP students in HSS and language course work.
<https://www.titech.ac.jp/english/student/pdf/20b.pdf>

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Eligibility for graduation by TSE curriculum (in addition to university-wide requirements)

- © 30 credits from the Table of the courses for TSE undergraduate major
- Completed Laboratory Opportunity for Research (TSE), Independent Research Project (IRP) **and** Advanced IRP (A-IRP).
- IRP must be taken first from April only and then A-IRP can be taken for the standard graduation.
- More than 54 credits from the Table of the courses for TSE undergraduate major
- More than 128 credits in total
- Careful consideration is necessary for early graduation.

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About early graduation

- Graduation with 3 years study or with 3.5 years study
- Eligibility conditions for early graduation
 - At the end of 2nd Quarter of the third year **or** at the end of 4th Quarter of the third year, GPT is more than 3.5
 - All requirements are met to start IRP

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Category Courses	Minimum number of credits required		
	Eligibility for department affiliation	Eligibility for independent research project for a bachelor's degree	Eligibility for graduation
Humanities and Social Science Courses	A total of 5 credits consisting of 2 credits in 100-level required courses 3 credits in 100-level restricted elective courses (1 credit each from the humanities, social studies, and transdisciplinary studies)	31 credits • A total of 31 credits consisting of 17 credits from the total of 23 credits shown in the column to the left and, including those to the left, credits in 100-level courses (excluding separately prescribed courses)	9 credits • 2 credits in 100-level required courses • 3 credits in 100-level restricted elective courses (one credit each from humanities, social sciences, and transdisciplinary studies) • 4 credits from 200-level and 300-level required courses and restricted elective courses
English Language Courses	A total of 4 credits in 100-level required courses	6 credits • 4 credits in 100-level required courses • 2 credits in 200-level and 300-level required courses OR 14 credits • 14 credits in 100-level required courses	13 credits • 2 credits in 100-level required courses • 3 credits in 100-level restricted elective courses (1 credit each from humanities, social sciences, and transdisciplinary studies) • 4 credits in 200-level restricted elective courses • 2 credits in 300-level required courses • 2 credits in 300-level restricted elective courses
Basic Science and Technology Courses	A total of 14 credits in 100-level required courses		9 credits • 4 credits in 100-level required courses • 4 credits in 200-level required courses • 2 credits in 300-level required courses
Second Foreign Language Courses		2 credits • 200-level and 300-level restricted elective courses	14 credits • 14 credits in 100-level required courses
		Students will be asked to choose one or two languages to study. 2 credits can be attained by learning the same language, or by learning two different languages (1 credit each).	4 credits • 200-level and 300-level restricted elective courses
			Students will be asked to choose one or two languages to study. 4 credits can be attained by learning the same language, or by learning two different languages (2 credits each).

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Additional notes for the Table 2 on page (6) of the Study Guide

Last updated: Sep. 2023 (originally in April, 2022)

(Note: some numbers in circle appear twice. Letters in red are revised from the translated "Study Guide".)

Table 2. Minimum number of credits required by graduation

Category	Minimum number of credits required		
Courses	1 Eligibility for department affiliation	2 Eligibility for independent research project for a bachelor's degree	3 Eligibility for graduation
Humanities and Social Science Courses	4 A total of 5 credits consisting of 2 credits in 100-level required courses 3 credits in 100-level restricted elective courses (1 credit each from the humanities, social studies, and transdisciplinary studies)	5 31 credits • A total of 31 credits consisting of 17 credits from the total of 23 credits shown in the column to the left and, including those to the left, credits in 100-level courses (excluding separately prescribed courses)	6 9 credits • 2 credits in 100-level required courses • 3 credits in 100-level restricted elective courses • 4 credits from 200-level and 300-level required courses and restricted elective courses
English Language Courses	7 A total of 4 credits in 100-level required courses	8 6 credits • 4 credits in 100-level required courses • 2 credits in 200-level and/or 300-level required courses	9 13 credits • 2 credits in 100-level required courses • 3 credits in 100-level restricted elective courses (1 credit each from humanities, social sciences, and transdisciplinary studies) • 4 credits in 200-level restricted elective courses • 2 credits in 300-level restricted elective courses • 2 credits in 300-level restricted elective courses • 9 credits
Basic Science and Technology Courses	10 A total of 14 credits in 100-level required courses	11 14 credits • 14 credits in 100-level required courses	12 14 credits • 14 credits in 100-level required courses
Second Foreign Language Courses	13	14 2 credits • 200-level and 300-level restricted elective courses Students will be asked to choose one or two languages to study. 2 credits can be attained by learning the same language, or by learning two different languages (1 credit each).	15 4 credits • 200-level and 300-level restricted elective courses Students will be asked to choose one or two languages to study. 4 credits can be attained by learning the same language, or by learning two different languages (2 credits each).
Related Courses	16	17 opportunity courses	18 independent research project for a bachelor's degree

Should read with this direction in an accumulated manner

- All GSEP students automatically belong to the TSE department when they proceed to the second year after enrollment. Therefore this part is not critically relevant. However, it is important to make it clear that the students are supposed to take the required number of credits before they become second year students. If a GSEP student misses some required course, then in the later stage of the study, he/she needs to extend his/her study period beyond four years, which is the standard study period for a bachelor student.
- This requirement is met by "Tokyo Tech Visionary Project (100-level)", a compulsory course for all Tokyo Tech students.
- Can earn the required number of credits regardless of the combination of categories: humanities, social sciences and transdisciplinary studies.
- Earned credits under 200-level and 300-level Humanities and Social Sciences courses can be substituted for 100-level Humanities and Social Sciences courses credits. Note that if some credits are regarded for a category of a course, then the same credits are not allowed to be regarded as for other category of courses.
- Out of 4 credits, 2 credits must be earned by taking "Liberal Arts Final Report (300-level)", a required course for all Tokyo Tech undergraduate students.
- This statement is not applicable to GSEP students. Instead, GSEP students are required to take Japanese courses from Japanese 1 (GSEP) to Japanese 4 (GSEP), which are all 100-level
- This statement is not applicable to GSEP students. Instead, GSEP students are required to take Japanese courses from Japanese 5 (GSEP) to Japanese 8 (GSEP), which are all 200-level.
- This is attained by taking Japanese 9 (GSEP), which is a 300-level Japanese language course comprised of either an I3 or higher levels of Intermediate Japanese courses for graduate students; register "Japanese 9" in the Kyomu web system. Note that there will be no class explicitly named "Japanese 9 (GSEP)" in the list of Japanese language courses.
- Can earn the required number credits by taking elective English courses in 200-level and 300-level (note that required English language course are not applicable.)

If GSEP students can join second foreign language courses and earn the credits from them, those credits will be counted as in the general rules of Tokyo Tech.

Additional notes for the Table on page (77) of the Study Guide

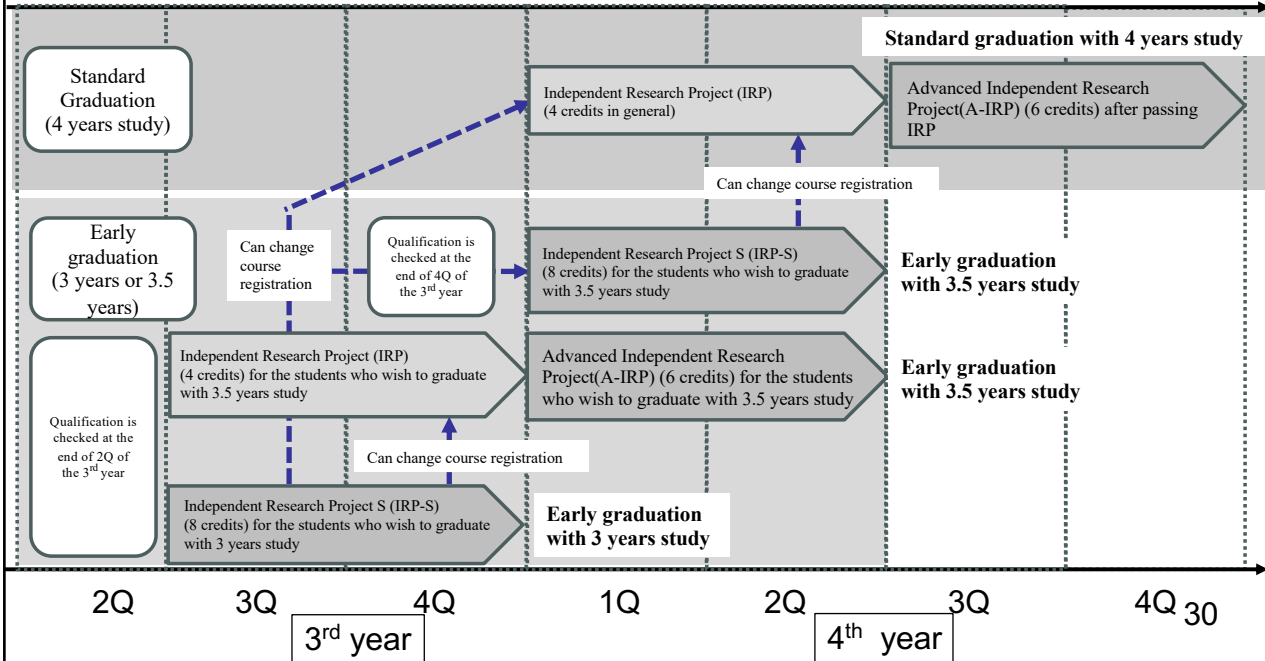
Japanese language and culture courses

Course level	Course	Number of credits	Quarter when offered
100	Japanese 1	0-1-0	1Q
100	Japanese 2	0-1-0	2Q
100	Japanese 3	0-1-0	3Q
100	Japanese 4	0-1-0	4Q
200	Japanese 5	0-1-0	1Q
200	Japanese 6	0-1-0	2Q
300	Japanese 7	0-1-0	3Q
200	Japanese 8	0-1-0	4Q
100	Japanese Culture: Adaptation	0-1-0	1Q
200	Japanese Culture: Japanology	0-1-0	2Q
300	Japanese Culture: Language and literature	0-1-0	3Q
300	Japanese Culture: Language and society	0-1-0	4Q

- Japanese 1 (GSEP) to Japanese 8 (GSEP) are equivalently regarded as those courses.
As explained in the previous slide, the credits of Japanese 9 (GSEP) need to be earned by one of the I3 or higher levels of Intermediate Japanese courses for graduate students.
- Note that we will not open any class named "Japanese 9".
- Among four courses for 4 credits, only a maximum of 3 credits from the three courses can be substituted for ILA's Humanities and Social Sciences course' credits.
- Note: For those international undergraduate students who study in Japanese, they are allowed to substitute 12 credits at maximum from Japanese Language and Culture course for either ILAs' Humanities and Social Sciences courses' credits or required English Language courses' credits. GSEP students are determined to substitute 9 credits by taking Japanese language courses for English language courses' credits. Therefore, remaining 3 credits are eligible for the ILA's Humanities and Social Sciences courses' credits

!New rules adapted for graduation for the student 22B or later!

- **Independent Research Project (IRP, 4 credits) and Advanced Independent Research Project (A-IRP, 6 credits) become compulsory courses.**
- **Must take IRP first from April of the 4th year only and then take A-IRP in the standard graduation procedure**
- **If a student could not satisfy the requirements to start IRP by the end of 4th quarter of the 3rd year, the student needs to repeat another year.**
- **A qualified student for early graduation with 3 years study can take IRP-S (8 credits)**



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Agreement	Credits acquired by students	→ Can be counted toward the credit requirements for the courses below
1.1	Humanities and Social Science Courses (200-level restricted electives)	→ Humanities and Social Science Courses (100-level restricted electives)
1.2	Humanities and Social Science Courses (300-level restricted electives) (A)	→ Humanities and Social Science Courses (100- or 200-level restricted electives) (B)
1.3	English Language Courses (200- or 300-level electives) (courses other than "English 1" to "English 9")	→ Second Foreign Language Courses (restricted electives)
1.4	Japanese Language and Culture Courses (up to 3 credits) (up to 3 out of the following 4 courses: "Japanese Culture: Adaptation," "Japanese Culture: Society," "Japanese Culture: Arts," and "Japanese Culture: Japanology")	→ Humanities and Social Science Courses (100- or 200-level restricted electives) (C)
1.4	Japanese Language and Culture Courses (9 credits) (In principle, the following 9 courses: "Japanese 1 GSEP" to "Japanese 9 GSEP"; For students who enrolled in 2016, "Survival Japanese 101, 102" and "Introduction to Japanese 2A, 2B" are deemed equivalent to "Japanese 1A, 1B, 2A, 2B.")	→ English Language Courses (required courses) (9 credits) (9 courses: from "English 1" to "English 9")
1.5	Global Awareness and Other Breadth (2 specific courses)	→ Humanities and Social Science Courses (100-level restricted electives)

1.5 is no longer applicable to any GSEP students.

<https://www.titech.ac.jp/english/student/pdf/20b.pdf>

Notes for
section 1

International students may use up to 12 credits acquired from Japanese Language and Culture Courses to fulfill the requirements for Humanities and Social Science Courses. For consistency with that rule, regarding credits that can be counted toward the credit requirements for Humanities and Social Science Courses (100- or 200-level restricted electives) under agreement 1.4, GSEP students may use up to 3 credits (9 credits for English Language Courses subtracted from the 12 credits) to fulfill the same requirements. (C)

Notes for
section 2

For example, when a student attains 300-level course credits from Humanities and Social Science Courses (200- and 300-level restricted electives) as stipulated in (A) and uses those credits to fulfill the requirements stipulated in (B), the student may not use those credits to fulfill the requirements for 300-level restricted electives .

<https://www.titech.ac.jp/english/student/pdf/20b.pdf>

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GSEP Japanese Language and Culture Courses 2024

GSEP students must obtain the right 9 credits of Japanese language and culture courses to receive your bachelor's degree.

[Course list]

100-level (1st year), Beginner level

Japanese 1(1Q): Tuesday 13:30~ and Thursday 15:25~

Japanese 2(2Q), 3(3Q) and 4(4Q): Tuesday 13:30~ and Thursday 10:45~

200-level (2nd year), Pre-intermediate level

Japanese 5(1Q), 6(2Q), 7(3Q) and 8(4Q) : Wednesday 13:30~

300-level (3rd year)

Japanese 9(1-4Q)

GSEP student Orientation and Consultation for Japanese language

Day and time: 13:30-14:40, Apr. 4 (Thursday)

Place: W1-104, West Bldg.1, Ookayama campus

***2nd-year students and above with higher Japanese language levels are encouraged to participate in this consultation.**

Details could be found at:

<https://docs.google.com/document/d/1JeZ1WND5p9KJ6WC3leB0kiIMw6P5zQbn/edit>

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Japanese Class

2) For beginner learner (B1 and B2 level):

The first class for Japanese 1 will be held on April 9th, 13:30-.
Classes will be held face-to-face at Ookayama Campus.

2) For students who have studied Japanese before (B3~ level): according to your Japanese language level, the coordinator will recommend you attending one or two intermediate-level classes open for graduate students.

Consultation session will be held after the orientation on Apr. 3.

Procedures: Once you are allowed to reserve the class, reserve a Japanese class that is suitable for your Japanese level on the JCOS, select "Japanese 1-9" from a pull-down menu of "credit". Then register for Japanese 1-9 (undergraduate courses) on the Kyomu Web System. For credit approval, the following courses are recommended: Basic Japanese 3 or 4; and Intermediate Japanese 1, 2, 3, 4, 5, 6, 7 or 8.

Guide (Slide 5-7):

<https://docs.google.com/presentation/d/1sz20whUI8n2CaPjyBaC9CbRDJOuoOJQF/edit?usp=sharing&oid=102660635403088944014&rtpof=true&sd=true>

4. Japanese 9 (300-level)

You should obtain "Japanese 9" credit by attending one of the I3 or higher levels of Intermediate Japanese courses for graduate students; and register "Japanese 9" in the Kyomu web system. Note that we will not open any class named "Japanese 9".

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References:

Japanese courses for international graduate students

<https://js.ila.titech.ac.jp/~web/japanese.html>

Japanese course lists for graduate students

<https://js.ila.titech.ac.jp/~web/courselist.html>

Reservation and registration procedure of Japanese language classes for graduate students

<https://js.ila.titech.ac.jp/~web/japanese.html#procedure>

Inquiry about Japanese courses: basic@js.ila.titech.ac.jp

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Research ethics education

- Level 1: 1st year to 3rd year in bachelor's program
(before starting "Independent Research Project")
- Level 2: 4th year in bachelor's program (From the start of "Independent Research Project") to master's program
- Level 3: Doctoral program

Liberal Arts Courses

- ◎Tokyo Tech Visionary Project(LAH.C101)
- Ethics in Engineering A/B/C(LAH.T105, T206, T305)
- Frontiers of Science and Technology (LAS.F101)

Major Courses

- Processes for Creation in Science and Technology
【School of Environment and Society】(XES.P101)
- School of Environment and Society Academic Group Literacy (XES.A101)
- ◎Research Opportunities at Laboratories(TSE.Z381)
- ◎Independent Research Project (TSE.Z389)

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TSE Bulletin Board

South Entrance, S-6 Bldg
Near entrance , I-4 building

On-campus Website

<http://www.tse.ens.titech.ac.jp/en/>

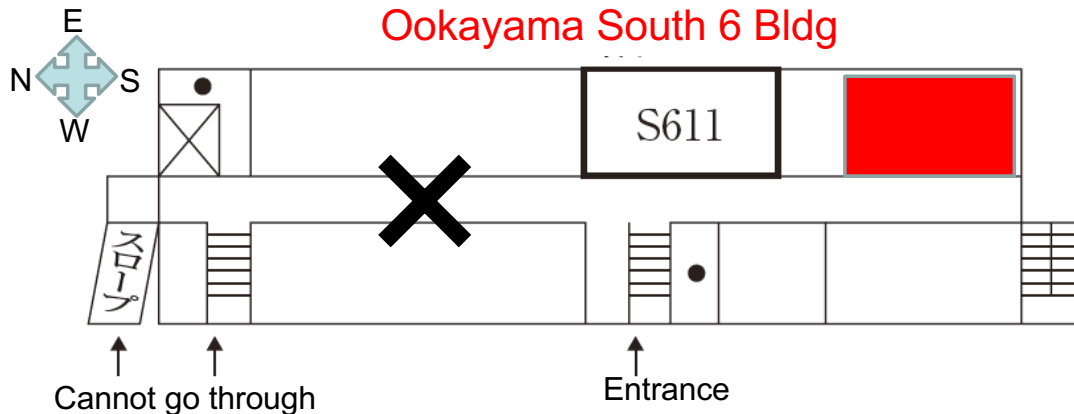
- Contact for TSE students
- Latest information on timetables can be confirmed
- Announcements for presentations etc.

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TSE Lounge and Locker

Ookayama South 6 Bldg



- Use for group meeting, self studying, etc.
- There is no trash bin. Please bring back your trashes.
- Keep it clean and neat
- Keep your voice low since it is close to houses around
- Please sign distributed 'oath' if you agree with the rules.
- Passcode to enter the lounge will be notified.

Details to be shared via e-mails

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TSE.Z381: Research opportunity in Laboratories (TSE)

- The purpose of this course is to provide students with an opportunity to be exposed to "research" at an early stage and to develop a concrete interest in graduate school education, which is highly specialized education.
- This is a required course in order to apply for TSE.Z389: Independent Research Project (IRP)
- A group of students visits four laboratories.
 - The four laboratories to be visited are randomly selected by the department.
 - To be taken in 3Q.
- Students may take the course in 1Q if they meet one of the following conditions.
 - Students who are provisionally approved for early graduation after 3 years of study. However, this option is strictly evaluated and rarely conducted.
 - The student has a concrete plan to study abroad or internship for more than one month in the 3Q, and is in the process of applying for such an internship or study-abroad program. Appropriate evidence must be submitted.
 - Students who have not completed this course (TSE.Z381) in the third year or later since they joined the department, including those who failed in the previous year.

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Laboratory (research group) assignment

- Students are assigned to the laboratory where they will conduct their TSE.Z389: Independent Research Project (IRP) in mid-December of their junior year after completing TSE.Z381: Research opportunity in Laboratories (TSE) in the 3rd quarter.
- By belonging to a laboratory before the start of the IRP from the 4th year, students are able to conduct in-depth research.
- In a laboratory, students follow the instructions of the principle investigator (PI) = professor or associate professor.
- Eligibility for the assignment
 - Students who satisfy the following two requirements at the same time
 - Grade: 3rd year or above after the entrance to Tokyo Tech
 - **Earned credits: students must have earned 62 credits or more by the 2nd quarter of the year of the assignment.** Eligible credits are due to the courses that are counted toward the total number of credits required for graduation.

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Laboratory assignment rule for GSEP students

- Possible affiliations
 - All labs led by professors and associate professors, who are affiliated with TSE Department as the primary appointment.
 - The labs led by the instructors for "Biological Science", which is offered by Dept. of Life Science and Technology (DLST). Note that the students who join DLST labs still belong to TSE department (no affiliation change). Assignment to DLST only means that the students do IRP under a DLST advisor.
- Number of allowed students joining laboratories
 - 1 student for a lab.
 - Total number of slots for the labs at DLST are limited up to two and 1 student for a lab.
- Grading criteria for the assignment
 - **Based upon the GPT up to the 2nd quarter of the third year**
 - However, based on each student's self-report and the submission of official transcript issued by Tokyo Tech, 0.01 point will be added to the GPT for each credit earned in courses offered in Japanese (excluding language courses)

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Laboratory assignment rule for GSEP students (2)

- Students who are eligible for laboratory affiliation should submit up to 10 laboratory choices in order of preference.
- Priority to select laboratories are based on the ranking of the students. Rank is based on the grading criteria mentioned earlier (i.e., GPT).

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Tentative

Important notes about lab assignment

- A preliminary survey of the laboratory choices will be conducted in the 3Q. The result will be public. Available laboratories where students can join will be listed.
- If a student applies for early graduation after 3 years of study and is provisionally approved, he/she will be assigned to a laboratory from July or September of his/her junior year, and will have priority in selecting a laboratory. For this case, the number of students who belong to a laboratory is determined separately. However, this option is strictly evaluated and rarely conducted.
- For students who have studied abroad for a long period of time or transfer students, consideration will be given to relaxing the credit requirements for laboratory affiliation.
- **If a student has been a member of a laboratory but is not eligible to apply for IRP in the 3rd quarter of the 4th year, the student may apply for reassignment to the laboratory. If the application for reassignment is approved, the student's laboratory affiliation will be decided based on the student's academic performance in the year of application.**

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Requirements to apply for IPR

- University-wide requirements applied.
- In addition to the above, the following TSE department conditions must be met.
 1. The student must have earned at least 28 credits in the compulsory TSE major courses (©) from among the courses.
 2. The student must have completed TSE.Z381: Research opportunity in Laboratories (TSE).
 3. Students must have earned at least 44 credits from the TSE major courses.
- Please check the PDF below for GSEP-specific requirements:

<https://www.titech.ac.jp/english/student/pdf/20b.pdf>

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