



Global 30: Future Global Leadership (FGL)

2020 Academic Year
(October 2020 Enrollment)

Application Guidelines for
International Graduate Programs in Engineering
International Materials Science and Engineering
Course (IMSE)
Master's Degree Program

TOHOKU
UNIVERSITY

October 2019
Graduate School of Engineering
Tohoku University

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1. Admissions Policy

● Master's Course

The Graduate School of Engineering welcomes prospective students who share our educational objectives and goals. They should have the following academic skills and abilities that are necessary to acquire knowledge and skills outlined in the curriculum policy:

1. Basic academic skills needed to learn engineering;
2. Logical thinking ability to solve problems; and
3. Linguistic proficiency to adapt to and leverage a global educational and research environment.

○ Educational Objectives and Goals

Staying true to the Tohoku University's traditional spirit of "Research First," "Open Doors," and "Practice-Oriented Research and Education," the Graduate School of Engineering is committed to achieving its educational objectives. One of these objectives is to develop researchers who act based on profound knowledge and broad perspective about nature and human beings, perform their research in an ethical, purposeful, and self-directed way to build safe, secure, and affluent society, and possess abundant creativity and high research skills that enable them to play a leading role in the future development and innovation of scientific technologies. Another educational objective of the School is to produce core technical experts who are equipped with not only a high-level of technical expertise but also a long-term vision and global viewpoint, and capable of making contributions to the sustainable development of our society.

Specifically, the educational goal of the Master's Degree Program is to endow students with a broad range of basic academic and language skills that are needed for the performance of research, as well as abilities to develop their research subjects by using unique ideas and present research theses at a public occasion. They are also expected to have basic skills and advanced techniques to perform a research or provide a research and technical guidance in their field of expertise.

○ Diploma Policy

The Graduate School of Engineering, Tohoku University will award a master's degree in engineering to students who pass a review of master's thesis or research results on a particular subject as well as the final examination. Students are also required to remain enrolled for a specific period of time, study a set of subjects that are offered in accordance with the School's educational objectives and goals, earn a specified number of credits, and demonstrate a high-level of ethical awareness and sense of responsibility, in addition to the following knowledge and skills:

1. A broad range of basic knowledge and academic skills that help students understand and explore the essence of their research subjects;

2. Profound knowledge about their fields of expertise;
3. Interdisciplinary knowledge relating to their fields of expertise;
4. System design skills obtained through the integration of knowledge outside their fields of expertise;
5. Skills to determine a research subject and solve issues;
6. Advanced skills to perform, apply, and develop their research;
7. Linguistic proficiency necessary to perform their research; and
8. Basic skills to provide research or technical guidance.

○ Curriculum Policy

The Graduate School of Engineering, Tohoku University, provides education according to the following policy to ensure that its students can acquire knowledge and skills required under the diploma policy:

1. Help students acquire a broad range of knowledge, advanced technical expertise, and interdisciplinary knowledge relating to their field of expertise that are necessary to understand the essence of their research subjects and perform their research;
2. Enable students to acquire advanced skills to work on their research subjects and develop the subjects by using unique ideas; and
3. Provide students with linguistic skills that are necessary to perform their research and make a presentation of the research results.

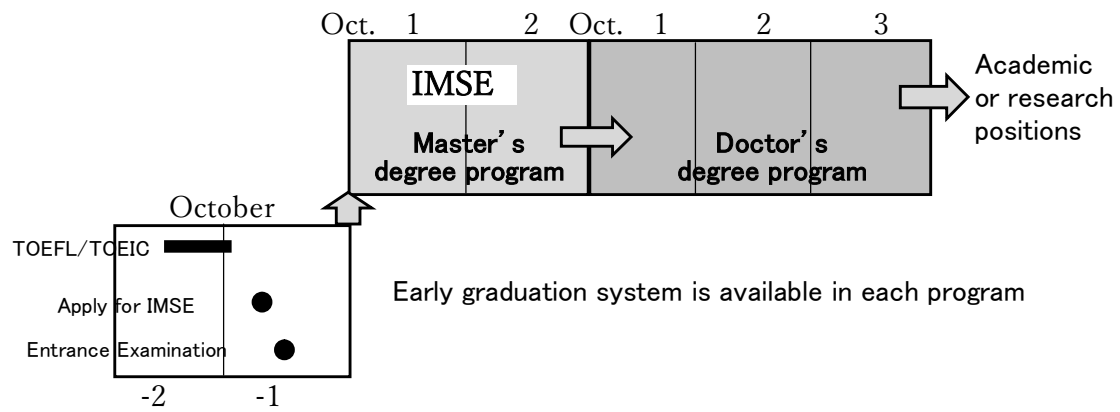
2. Outline of IMSE

The IMSE graduate programs were supported by the "Global 30" project. "Global 30" was a Ministry of Education, Culture, Sports, Science and Technology (MEXT) program to further promote the internationalization of core Japanese higher education institutions and to turn them into world-class international education and research centers. As one of the selected institutions of the Global 30 program, Tohoku University launched its Future Global Leadership (FGL) project in fall, 2009.

IMSE is one of the FGL programs aimed at enthusiastic global-minded international students who aspire to pursue key international leadership roles in the future. All lectures in this IMSE program can be taken in English.

The schematic career-path of IMSE is shown in the figure "IMSE Program Career-path". The academic calendar of IMSE starts in October. Students are screened by the entrance examination held in February or in March of the enrollment year. The examination is held in Tohoku University, Sendai, Japan.

Since IMSE master's program directly connects to the doctoral program, students will have the opportunity to go further to pursue the cutting-edge research throughout both Master's and Doctor's degree programs.



IMSE Program Career-path

The following three departments are participating in IMSE. Candidates will choose one department to enroll from the following departments:

- Metallurgy
- Materials Science
- Materials Processing

Details of scientific activities:

(<http://www.material.tohoku.ac.jp/english/index.html>)

Note: Approximate total of the annually accepted students are 10.

3. Qualifications for Application

- Those who have received a university education in Japan as international students or in an overseas university are eligible to apply for the International Graduate Programs in Engineering.
- Applicants for the **Master's Degree Program** must fulfill one of the following requirements.

The applicant must:

- (1) Have graduated from university or expect to graduate by September 2020.
- (2) Have received a bachelor's degree under Article 104 Paragraph 4 of the School Education Law of Japan, or expect to receive such a degree by September 2020.
- (3) Have completed a 16-year curriculum of school education overseas, or expect to complete such education by September 2020.
- (4) Have completed a 16-year curriculum of school education in Japan by taking correspondence courses offered by schools outside Japan, or expect to complete such education by September 2020.
- (5) Have completed a university education by taking courses designated by the Minister of Education, Culture, Sports, Science and Technology in an educational institution in Japan recognized as adopting the educational system of a foreign country and having the curriculum of that country (only when the person completing that education is regarded as having completed 16 years of that country's education), or expect to complete such education by September 2020.

- (6) Have been conferred a degree equivalent to a bachelor's degree upon completion of a curriculum that has a course term of three years or longer at a university or other school (limited to schools whose overall educational and research activities have been evaluated by the relevant country's government or a government-approved individual, or are designated separately as having met this requirement by the Minister of Education) in a foreign country (including cases in which the student completed the curriculum by taking subjects conducted by said school via distance learning while the student resided in Japan, and cases in which the student has completed a curriculum at an educational facility that is positioned within that country's educational system as per the previous item).
- (7) Have completed a specialized course of a special training school designated by the Minister of Education, Culture, Sports, Science and Technology (only when the schooling is at least four years in length and other criteria stipulated by the Minister are met), on or after the date stipulated by the Minister, or expect to complete such a course by September 2020.
- (8) Have been designated as eligible by the Minister of Education, Culture, Sports, Science and Technology under ministerial ordinance No. 5 of 1953.
- (9) Have been admitted to the graduate school of another university in accord with Article 102 Paragraph 2 of the School Education Law and be recognized by this Graduate School as having suitable academic ability for study in this program.

Note: Applicants who do not meet the above qualifications should contact the Graduate Academic Affairs Section (see 12. Contact Information).

4. Period for Submission of Applications

(1) Deadline: January 10, 2020.

(2) Submission

(a) By mail or in person

All application documents must be received by the deadline at the address below. Applicants who intend to submit their application forms in person should come to the office during office hours from 9:00 a.m. to 4:00 p.m. (The office is closed from 11:45 a.m. to 1:00 p.m.)

Mailing address:

Graduate Academic Affairs Section

Graduate School of Engineering

Tohoku University

6-6-04 Aramaki Aza Aoba, Aoba-ku, Sendai, Miyagi 980-8579, Japan

tel. +81-22-795-5820 (for mail and delivery service only)

5. Application Procedures

- Applicants applying for the Master's Degree Program should prepare the following documents in English or in Japanese and submit them by the deadline.

* Submit original certification documents. Photo copies, digital files, or printouts of digital files are not considered to be original documents.

* If any false description would be found in application documents, entrance approval may be cancelled even after enrollment.

* If your home institution does not issue certificates in English, you should contact our office (see 13. Contact Information) before the application period starts.

Required documents	Notes
Application for admission	Use an official application form for the International Graduate Programs in Engineering.
Undergraduate transcript	Issued by the dean of the university from which the applicant has graduated. (Not required if already enrolled in the School of Engineering, Tohoku University.)
Original of TOEFL® or TOEIC® score sheet Valid tests: TOEFL®-PBT, TOEFL-iBT®, TOEIC® Public Test	Submitted originals of TOEFL® or TOEIC® score sheets will not be returned. However, the TOEFL® "Test Taker Score Report" may be returned on the entrance examination day if the applicants request this at the time of application. Scores are valid only within two years before the date of the Entrance Examination. *TOEFL, TOEFL iBT, TOEFL ITP, and TOEIC are registered trademarks of Educational Testing Service (ETS).
Certificate of (expected) completion or of degree conferral	Issued by the dean of the university from which the applicant has graduated or by the NIAD (National Institution for Academic Degrees and University Evaluation, Japan).
*1 Photo ID and examination admission ticket	Photo (5cm high × 4cm wide) must show upper body, facing front with no hat, and have been taken within three months of application. Attach photo to the photo ID sheet.
Examination fee	30,000 yen

*2 Written recommendation from the expected supervisor	Prepared by the expected supervisor, using an official form for this Graduate School. (If a recommendation cannot be submitted, submit instead a letter of acceptance by the faculty member.)
Written recommendation from the applicant's university	Prepared by a supervising faculty member or equivalent from the applicant's university.
Other reference materials, if any	Academic publications demonstrating academic ability.

Applicants who live outside Japan should pay attention to the following notes.

*1 Photo ID sheet is not required. Only the photo itself should be submitted.

* 2 Written recommendation should be requested to the expected supervisor. The expected supervisor will obtain the official form from the office and submit it directly.

* Acquiring VISA for Examination (Temporary Visitor VISA) *

Applicants who live outside Japan and need to acquire a "Temporary Visitor VISA (for the examination)" should receive an "examination permit" which our university will issue after we receive your application. Those who require us to issue an "examination permit" should include a request letter (any format) along with the application documents. Applicants are also required to send a photo (5cm high ×4cm wide) in addition to the photo for the "photo ID". Please write the applicant's name and the name of department of which you have chosen to apply on the reverse side of the photo.

6. Examination and Selection

Examination dates: Monday, March 2 to Wednesday, March 4, 2020

Location: Graduate School of Engineering, Tohoku University, Sendai, Japan (Details will be sent directly to each applicant)

Important Note: Applicants are unable to take the oral examination via internet. They must take the exam at Tohoku University, Sendai, Japan.

Applicants to the International Graduate Programs in Engineering will be selected based on overall consideration of a written examination, oral interview examination, language proficiency, and the submitted documents.

7. Announcement of Results

Results are scheduled to be posted around 5:00 p.m. on Monday, March 9, 2020, on the website (<http://g30.eng.tohoku.ac.jp/imse/>).

Notification of results will also be mailed to applicants on the above date. Please note that results cannot be given in response to telephone inquiries.

8. Enrollment Procedures, etc.

(1) Details of the enrollment procedures will be announced in early September, 2020.

(2) Fees to be paid at the time of enrollment

(a) Admission fee: 282,000 yen (provisional)

(b) Tuition (first semester): 267,900 yen (annual 535,800 yen) (provisional)

Note 1: (a) and (b) are provisional. Should admission or tuition fees be revised, the new fees will become applicable from the time of change.

Note 2: Information on the waiving of admission or tuition fees, or permission to defer payment to a later date, will be provided in the enrollment procedure documents sent after notification of results.

9. Financial Support

Presidential Scholarship in Tohoku University

The President of Tohoku University provides scholarships for foreign students with excellent grades. Ten students are selected annually.

Employment as a teaching assistant (TA)

There are employment opportunities for the students in the master's program to be employed as TAs. Details will be announced after enrollment.

10. Handling of Personal Information

(1) The Tohoku University Graduate School of Engineering handles personal information in strict compliance with regulations stipulated in the "Act on the Protection of Personal Information Held by Incorporated Administrative Agencies" and the "National University Corporation Tohoku University - Policy on the Protection of Personal Information", and takes every precaution to protect personal information.

(2) Examination results and other personal information obtained in the application process will be used for the selection of students for admission, enrollment procedures, follow-up surveys, student support after enrollment (e.g., scholarships, tuition waiver, health care), student guidance and other academic purposes, as well as in collection of tuition fees, etc.

- (3) After enrollment, the Graduate School may outsource administrative work in educational affairs to third-party companies and provide them, depending on needs, with some or all of the student's personal information in compliance with the "National University Corporation Tohoku University - Policy on the Protection of Personal Information".

11. Important Notes

- (1) Candidates should locate a prospective research advisor at Tohoku University and contact him/her before submitting the application documents.
- (2) Applications by post are to be sent via means whereby you could retain a shipping confirmation (such as FedEx, EMS, UPS etc).
- (3) Notification of the receipt of the application will not be provided automatically. Those desiring notification of receipt of application should make the appropriate request to the office via e-mail.
- (4) Submitted application documents and examination fees cannot be returned.
- (5) If you do not receive your examination admission ticket by ten days prior to the examination date, please contact the Graduate Academic Affairs Section, Graduate School of Engineering (See 12.Contact Information).
- (6) All other inquiries regarding application for admission should be made to the Graduate Academic Affairs Section, Graduate School of Engineering.
- (7) Applicants desiring consultation regarding the need for assistance or other considerations in taking the examination or conducting their studies should create a written application indicating the items listed below (no special format). Be assured that such a request will in no way prejudice the outcome of the selection process, as all applicants will be treated fairly.
 - * Deadline for consultation: As a rule, no later than Wednesday, December 4, 2019.
 - * Information to be indicated in creating the application:
 - A) Name, address and phone number of applicant
 - B) University, etc. from which the applicant has graduated
 - C) Any consideration desired regarding taking the examination
 - D) Any consideration desired in the study environment
 - E) Nature of any consideration provided up to now
 - F) Other relevant information about daily life circumstances
 - G) Reference materials (if currently receiving medical treatment, enclose a medical certificate issued by the applicant's physician)
- (8) We have established Tohoku University Security Export Control Rules based on the Foreign Exchange and Foreign Trade Act, and screen each submitted application when we accept international students in our university. In the event that their research plans apply to the regulatory concerns, above mentioned students may not be able to receive desired education and their research themes may be limited.

12. Contact Information

Graduate Academic Affairs Section, Graduate School of Engineering, Tohoku University

6-6-04 Aramaki Aza Aoba, Aoba-ku, Sendai, Miyagi 980-8579, Japan

e-mail: eng-in@grp.tohoku.ac.jp

<http://g30.eng.tohoku.ac.jp/imse/>

Appendix — Admission Screening Examination Schedule for October 2020 Enrollment in International Graduate Programs in Engineering
International Materials Science and Engineering Master Course (IMSE)

Departments	Subjects	Date and Time (Sendai, Japan)	Description	Remarks
Metallurgy Materials Science Materials Processing	English		Submit an original TOEFL or TOEIC score sheet with the application form. English-native applicants should contact the department.	<p>(1) The Oral examination may be waived depends on the applicant's record shown on the submitted transcripts.</p> <p>(2) For details on the scope of each subject, inquire with the department or consult the web site below. http://www.material.tohoku.ac.jp/english/index.html</p> <p>(3) Calculators and other devices such as watches and mobile phones with calculation or communication functions are not allowed to use during examination.</p> <p>Applicants will be informed details individually..</p> <p>Contact information for any inquiry: Department of Materials Science and Engineering, Educational Affairs Section e-mail: kyomu.material@grp.tohoku.ac.jp</p>
	Physics	Mon.,Mar. 2~ Wed.,Mar. 4	Oral examination in physics.	
	Chemistry	Mon.,Mar. 2~ Wed.,Mar. 4	Oral examination in chemistry.	
	Specialized subjects	Mon.,Mar. 2~ Wed.,Mar. 4	Oral examination in three subjects of Metallurgy, Materials Science and Materials Processing.	
	Short essay	Mon.,Mar. 2~ Wed.,Mar. 4	Prepare a short essay (800 words) in English or in Japanese. The title of short essay will be provided.	