



TOHOKU
UNIVERSITY

Global 30: Future Global Leadership (FGL)

2012 Academic Year
(October 2012 Enrollment)

Application Guidelines for International Graduate Programs in Engineering

**International Mechanical and Aerospace
Engineering Course (IMAC+G)**

Master's Degree Program

Doctoral Degree Program

**TOHOKU
UNIVERSITY**

October 2011
Graduate School of Engineering
Tohoku University

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1. Admissions Policy

Tohoku University is committed to providing education and research programs of the highest international caliber. Drawing on a proud tradition, the many faculties, graduate schools, and associated research institutes are united in their aim to serve as a comprehensive center for the creation of knowledge, and as a research-oriented university centered on the graduate schools, which also collaborate with the faculties.

In the Tohoku University tradition of "Research First," the Graduate School of Engineering is equipped with the staff and facilities necessary for carrying out cutting-edge research. The educational goal of the Graduate School is to develop researchers with outstanding abilities who are capable of original thinking, and engineers with highly specialized knowledge. They should be able to carry out their own creative research and play a major role in the progress and innovation of future science and technology, rooted in a broad perspective and deep knowledge of humanity and nature, with the aim of realizing a safe, fulfilling society.

The Graduate School of Engineering looks for the following traits in prospective students.

- Fundamental scholastic abilities in engineering studies, and a compelling desire to study in this Graduate School.
- The ability to develop original ideas and to undertake self-motivated research with great dedication.
- The ability to work cooperatively as team members and communicate with others.
- A deep interest in nature and human society, and a desire to contribute to human welfare by creating future technologies benefiting people and the environment.
- Wide-ranging knowledge and the flexibility to put that knowledge to use in order to become engineers and researchers able to play active roles internationally.

The graduate program in the International Mechanical and Aerospace Engineering Course (IMAC-G) was established in October 2009. This course is one of the courses offered under the Global 30 program at Tohoku University, and is organized by the Graduate School of Engineering. The main aim of IMAC-G is to cultivate global-minded engineers and leaders who can take up active roles in the development of cutting-edge technologies based on mechanical engineering.

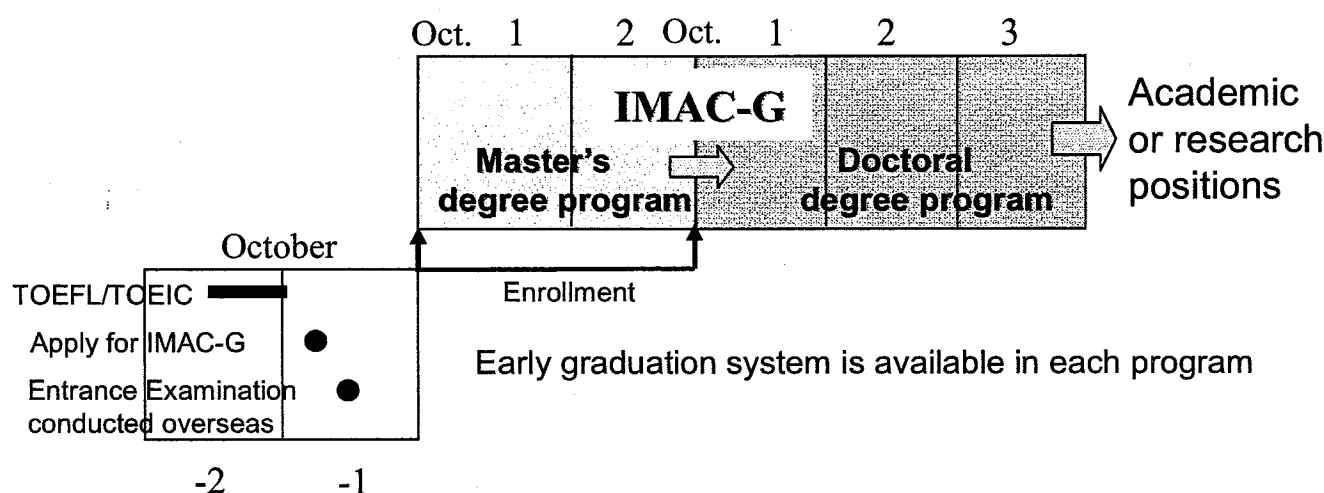
2. Outline of IMAC-G

The IMAC-G graduate programs are supported by the "Global 30" project. "Global 30" is a Ministry of Education, Culture, Sports, Science and Technology (MEXT) program to further promote 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 under the Global 30 program Tohoku University launched its Future Global Leadership (FGL) project in fall, 2009.

IMAC-G is one of the FGL programs aimed at enthusiastic global-minded international students who aspire to assume key international leadership roles in the future. All lectures in the IMAC-G program are conducted in English.

The schematic career-path in IMAC-G is shown in the figure below. The academic calendar of IMAC-G starts in October. Students are screened via an entrance examination held in February or March in the enrollment year. The examination is held not only in Japan but also overseas. This makes the application procedure more accessible for students outside of Japan.

Students can enroll in the IMAC-G master's or doctoral program. As the master's program directly connects to the doctoral program in IMAC-G, students have the opportunity to conduct cutting-edge research throughout both graduate programs.



IMAC-G Program Career-path

The following five departments are participating in IMAC-G. Candidates choose a department to enroll in from the five departments listed below:

- ☐ Mechanical Systems and Design
- ☐ Nanomechanics
- ☐ Aerospace Engineering
- ☐ Quantum Science and Energy Engineering
- ☐ Bioengineering and Robotics

The number of students accepted annually is approximately 10.

3. Qualifications for Admission

- 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 2012.

complete such education by September 2012.

- (4) Have completed at least 16 years of school education in Japan by taking correspondence courses offered by schools outside Japan, or expect to complete such education by September 2012.
- (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 2012.
- (6) 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 2012.
- (7) Have been designated as eligible by the Minister of Education, Culture, Sports, Science and Technology under ministerial ordinance No. 5 of 1953.
- (8) Have completed 15 years of school education in a foreign country, or have completed 15 years of school education in Japan by taking correspondence courses offered by schools outside Japan; or 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 15 years of that country's education), and is recognized by this Graduate School of Engineering as having obtained the necessary credits with excellent grades.
- (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 satisfy the above qualifications should contact the Graduate Academic Affairs Section (see12. Contact Information).

4. Period for Submission of Applications

(1) Deadline: January 10, 2012.

(2) Submission

(a) By mail or in person

All application documents should be sent by the deadline to the address below. Applicants who intend to submit their applications in person should go to the office during office hours from 9:00 a.m. to 4:30 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 Japanese and submit them by the above deadline.

*** Submit the original of all certification documents. Copies, digital files, or printouts of digital files are not considered to be original documents.**

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 Tohoku University School of Engineering.)
Original of TOEFL/TOEIC score sheet Valid tests: TOEFL-PBT, TOEFL-iBT, TOEIC Public Test	Submitted originals of TOEFL/ TOEIC score sheets will not be returned. The TOEFL "Examinee Score Report" can be returned on the entrance examination day if you request this at the time of application.
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	This must be paid at the time of enrollment. (See 8.Enrollment Procedures etc.)
Written recommendation	Prepared by a supervising faculty member or equivalent from 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.**

* Acquiring VISA for Examination (Temporary Visitor VISA) *

Applicants who live outside Japan wishing to take the examination in Sendai and who 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) and include this letter 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 your name and the department to which you have chosen to apply on the reverse side of the photo.

6. Examination and Selection

Examination dates: Tuesday, February 28 to Thursday, March 1, 2012

Examination Venues: (Details will be sent directly to each applicant)

In Japan: Graduate School of Engineering, Tohoku University, Sendai, Japan

Outside of Japan: An oral examination will be conducted.

Applicants will be informed of the details individually.

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 submitted documents.

7. Announcement of Results

Results are scheduled to be posted around 5:00 p.m. on Monday, March 5, 2012, on the central bulletin board for academic affairs of the Graduate School of Engineering.

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.

The results will be made available on the following homepage:

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

8. Enrollment Procedures etc.

(1) Details of the enrollment procedures will be announced when the acceptance letter is mailed in late May, 2012.

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

(a) Examination fee: 30,000 yen

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

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

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

MEXT Scholarship

IMSE is one of the Global 30 educational programs supported by the Ministry of Education, Culture, Sports, Science and Technology (Monbukagakusho: MEXT) and has been assigned priority positions for Japanese government scholarships (MEXT scholarship) awarded through university recommendation.

Details of this scholarship will be sent after notification of results.

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 opportunities for the students in the master's program to be employed as TAs. The 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".

Duplicate of master's thesis	If thesis cannot be submitted, summary of research (approximately 2,000 characters, 2 A4-size pages).
* 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 it to the photo ID sheet.
Examination fee	This must be paid at the time of enrollment. (See 9.Enrollment Procedures etc.)
Written recommendation	Prepared by an academic or equivalent from 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.

*** Acquiring VISA for Examination (Temporary Visitor VISA) ***

Applicants who live outside Japan wishing to take the examination in Sendai and who 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) and send the letter 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 your name and the name of the department to which you have chosen to apply on the reverse side of the photo.

7. Examination and Selection

Examination dates: Thursday, March 8 through Friday, March 9, 2012

Examination Venues: (Details will be sent directly to each applicant)

In Japan: Graduate School of Engineering, Tohoku University, Sendai, Japan

Outside of Japan: The school will designate the locations of examination taking into account the place of applicants' residence and the number of applicants from their respective countries.

Selection Method:

Preliminary screening will be made on the basis of the submitted documents and the result will be notified to the applicants prior to the written examination and interview. Only those who have passed the preliminary screening are eligible to take the written examination and interview. Successful applicants will be selected based on overall scores of the written examination, the oral interview, language proficiency, and the submitted documents.

8. Announcement of Results

Results are scheduled to be posted around 5:00 p.m. on Wednesday, March 21, 2012, on the central bulletin board for academic affairs of the Graduate School of Engineering. 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. The results will be made available on the following homepage:
<http://g30.eng.tohoku.ac.jp/imac>

9. Enrollment Procedures etc.

(1) Details of the enrollment procedures will be announced when the acceptance letter is mailed in late May, 2012.

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

(a) Examination fee: 30,000 yen

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

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

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

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

10. Financial Support

MEXT Scholarship

This is a scholarship offered by the Ministry of Education, Culture, Sports, Science and Technology (Monbukagakusho: MEXT) a part of the Japanese government. Because IMAC-G is one of the Global 30 program supported by the MEXT, there is a quota for IMAC-G students although it is not large. Selected applicants will receive the scholarship. Details of this scholarship will be sent after notification of results.

Employment as a research assistant (RA) and teaching assistant (TA)

There are opportunities for the students in the doctoral program to be employed as RAs, and those in the master's program to be employed as TAs. The details will be announced after enrollment.

11. 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”.

12. Important Notes

- (1) Applications by postal mail are to be sent via means whereby you can retain a record of sending (From Japan: Registered Express Mail, From overseas: FedEx, EMS, UPS, DHL etc.).
- (2) Receipt of applications will not be provided automatically. Those desiring notification of receipt of their application should make the appropriate request to the office by e-mail.
- (3) Submitted application documents and examination fees cannot be returned.
- (4) 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).
- (5) All other inquiries regarding application for admission should be made to the Graduate Academic Affairs Section, Graduate School of Engineering.
- (6) Applicants desiring consultation regarding the need for special assistance or other consideration in taking the examination or conducting their studies should make 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 14, 2011.

* Information to be indicated in making application:

- A) Name, address and phone number of applicant
- B) University, etc. from which the applicant has graduated
- C) Any special consideration desired regarding taking the examination
- D) Any special consideration desired in the study environment
- E) Nature of any special 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 your physician)

13. 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@bureau.tohoku.ac.jp
Homepage: <http://g30.eng.tohoku.ac.jp/>

**Appendix — Admission Screening Examination Schedule for October 2012 Enrollment in International Graduate Programs in Engineering
International Mechanical and Aerospace Engineering Course – Graduate (IMAC-G)**

Departments	Subjects	Date*	Description	Remarks
Mechanical Systems and Design, Nanomechanics, Aerospace Engineering, Quantum Science and Energy Engineering, Bioengineering and Robotics	English		Submit an original TOEFL, TOEIC or IELTS score sheet with the application form. Students, whose native tongue is considered to be English, should contact the department.	<p>Applicants will be informed of the detailed interview schedule individually.</p> <p>Inquiries: Department of Systems Science and Mechanical Engineering Academic Affairs Section e-mail: imac-g@mech.hokoku.ac.jp Homepage: http://g30.eng.hokoku.ac.jp/imac</p>
	Interview	Thu., Mar. 8~Fri., Mar. 9	Prepare a <u>10-minute presentation</u> using a slideshow file about your bachelor thesis, your undergraduate research opportunities, or other equivalent exercise(s) which you undertook in your undergraduate program. A <u>30-minute question session</u> about fundamental knowledge of mechanical engineering and discussion regarding your presentation and your research plan in this program will follow.	

* Date : for the examination in Sendai, Japan. The schedule for examinations conducted overseas will be announced in advance.

志望専攻	専攻	受験記号番号	
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* Please DO NOT fill in the above blanks

FORM (1/3)

In A4 sized (21cm × 29.5cm) printing

2012 Academic Year

APPLICATION FOR AUTUMN ENROLLMENT IN INTERNATIONAL GRADUATE PROGRAMS IN ENGINEERING
INTERNATIONAL MECHANICAL AND AEROSPACE ENGINEERING COURSE (IMAC-G)

平成 24 年度 国際機械工学コース入学願書

(October 2012 enrollment)

(平成 24 年 10 月入学)

INSTRUCTIONS (記入上の注意)

- 1.The application should be typed if possible, or neatly handwritten in block letters. (明瞭に記入すること。)
- 2.Numbers should be in Arabic numerals. (数字は算用数字を用いること。)
- 3.Years should be written using the Anno Domini system. (年号はすべて西暦とすること。)
- 4.Proper nouns should be written in full and not abbreviated. (固有名詞はすべて正式な名称とし、一切省略しないこと。)

1. Name in full in native language _____ (Sex)
(姓名 (自国語)) (Family name) (First name) (Middle name) ☐ Male (男)
☐ Female (女)

In Roman block capitals _____
(ローマ字) (Family name) (First name) (Middle name)

2. Nationality _____
(国 籍)

3. Date of birth (生年月日)

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Year (年) Month (月) Day (日) Age (as of October 1, 2012)
年齢 (2012 年 10 月 1 日現在)

4. Department and supervisor to which you wish to apply (志望専攻名・受入(希望)教員名)

Department of _____ / ☐ Prof. ☐ Associate Prof.

5. Desired examination venue (希望受験地)

Country (国) : _____ City (都市) : _____

*The school will designate where to hold examinations in consideration of the applicant's place of residence specified in this Application Form, as well as the number of applicants from each country. Tohoku University does not guarantee the availability of examinations outside of Japan.

(受験地は、願書に記載された志願者の居住国およびその国からの出願者数等を考慮し、当校で指定します。これは日本国外における入学試験実施を保障するものではありません。)

6. Present address and telephone number, facsimile number, e-mail address
(現住所及び電話、ファックス番号、E-mail アドレス)

現住所 (Present address) : _____

電話番号/FAX 番号 (Telephone/facsimile number) : _____

E-mail address : _____

7. The institution from which you have graduated / will graduate. (卒業した、あるいは卒業予定の機関)

Institution (機関) _____ Year (年) _____ Month (月) _____

8. Educational background (学歴)

	Name and Address of School (学校名及び所在地)	Year and Month of Entrance and Completion (入学及び卒業年月)	Period spent at the school attended (修学年数)	Diploma or Degree awarded, Major (学位・資格, 専攻科目)
Elementary Education (初等教育)	Name (学校名)	From (入学)	years (年)	
Elementary School (小学校)	Location (所在地)	To (卒業)	and months (月)	
Secondary Education (中等教育)	Name (学校名)	From (入学)	years (年)	
Lower Secondary School (中学)	Location (所在地)	To (卒業)	and months (月)	
Upper Secondary School (高校)	Name (学校名)	From (入学)	years (年)	
	Location (所在地)	To (卒業)	and months (月)	
Higher Education (高等教育)	Name (学校名)	From (入学)	years (年)	
Undergraduate Level (大学)	Location (所在地)	To (卒業)	and months (月)	
Graduate Level (大学院)	Name (学校名)	From (入学)	years (年)	
	Location (所在地)	To (卒業)	and months (月)	
Total years of schooling stated above (以上を通算した全学校教育修学年数) as of October 1, 2012 (2012年10月1日現在)			years (年)	

*If the space is not sufficient for the information required, please use a separate sheet and attach it to this document.

((注) 上欄に書ききれない場合には, 適当な別紙に記入して添付すること。)

9. State the titles or subjects of books or papers (including graduation thesis authored by the applicant), if any, with the name and address of the publisher and the date of publication.

(著書, 論文, (卒業論文を含む。))があればその題名, 出版社名, 出版年月日, 出版場所を記すこと。)

*Please attach abstracts of those papers to this application. ((注) 論文の概要を添付のこと。)

10. Employment Record: Begin with most recent employment, if applicable. (職歴)

Name and address of organization (勤務先及び所在地)	Period of employment (勤務期間)	Position (役職名)	Type of work (職務内容)
	From To		
	From To		

* I swear the above is a true statement
(上記のとおり相違ありません)

Date of application:
(申請年月日)

Applicant's signature:
(申請者署名)

Applicant's name
(in Roman block capitals):
(申請者氏名)

Address Labels (受験票, 可否通知書, 及び受験許可書 (受験ビザ取得のため) を送付するための宛名ラベル)

Fill in the receiver's name and address on the following labels.

* For sending the "examination admission ticket"

To: _____
Address: _____

(examination admission ticket)

* For sending the "notification of results"

To: _____
Address: _____

(results notification)

[if applicable] (該当する場合)

* For sending the "examination permit" (to acquire a Temporary Visitor VISA in order to sit the examination)

To: _____
Address: _____

(examination permit)