

IGPAS

International Graduate Program for Advanced Science

2010

GRADUATE SCHOOL OF SCIENCE,
TOHOKU UNIVERSITY



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1. INTRODUCTION

International Graduate Program for Advanced Science (IGPAS) is an interdisciplinary graduate program in the Graduate School of Science, Tohoku University. It was established in October 2004 as the first international graduate program founded in Japanese national universities. IGPAS offers courses in English for international students who are eager to obtain master's and doctoral degrees from the Graduate School of Science. It also aims to educate Japanese students to exert their abilities as internationally-active, professional scientists.

IGPAS has attracted attention from students all over the world with its interdisciplinary education as well as availability of financial support. Since the beginning, IGPAS has proudly reserved positions of Japanese government scholarship for its master's students. For doctoral students, IGPAS has started Super Doctoral Course (SDC) in 2008 as a joint doctoral program in collaboration with the Institute for the International Advanced Research and Education (IIARE) of Tohoku University. Students of IGPAS-SDC benefit from fellowship by IIARE to promote world-leading research at the Graduate School of Science.

Prospective students will have excellent opportunities to study modern science and conduct cutting-edge research with top-level scientists currently working at Tohoku University.

2. ABOUT THE GRADUATE SCHOOL

Established in 1907, Tohoku University is the third oldest university in Japan. The Faculty of Science began its history with the foundation of the university, and the Graduate School of Science started later in 1953. Since then, both the Faculty of Science and Graduate School of Science have played a leading role in various areas of science under the guiding principles of "Research First" and "Open Door." It was the Faculty of Science that admitted female students for the first time in Japan and also conferred the Doctorate to international students. It has also produced many distinguished leaders into academic and industrial communities.

As of April 2009, there are 283 faculty members, including 78 professors, 77 associate professors, 7 lecturers (senior assistant professors), 118 assistant professors and 3 research associates engaging in research and education at the Graduate School of Science. A significant number of international scholars, including visiting researchers, professors and lecturers, have been affiliated with the Graduate School of Science.

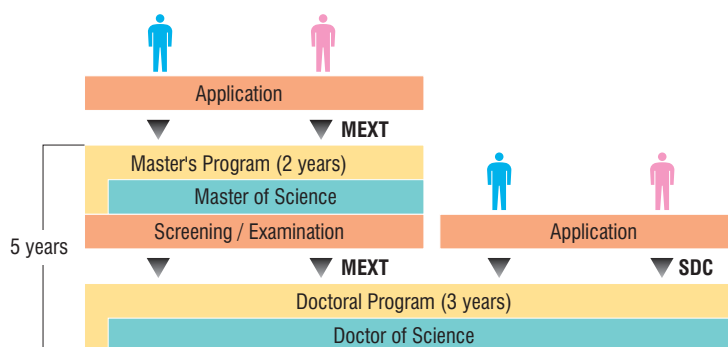
Today, three programs of Global Centers of Excellence (GCOE) (see 15. REFERENCES) have internationally enhanced research activities and provided more educational opportunities for students: (i) International Center of Research and Education for Molecular Complex Chemistry, (ii) Weaving Science Web beyond Particle-Matter Hierarchy, and (iii) Global Education and Research Center for Earth and Planetary Dynamics.



3. PROGRAM DETAILS

IGPAS is a 5-year graduate program as the combination of a 2-year master's program and a 3-year doctoral program. Each student is affiliated to one of six departments, which are divided into three groups according to the GCOE programs: (i) Chemistry, (ii) Mathematics, Astronomy, and Physics, and (iii) Earth Science and Geophysics.

The academic year of IGPAS starts in October. The Graduate School of Science will admit at most 20 students each for the master's and doctoral programs for IGPAS 2010.



4. COURSES AND CURRICULUM

Each of six departments in the Graduate School of Science determines its own curriculum and course requirements. Availability of classes varies depending on the semester and/or departments. Students may consult their supervisor about research plan each semester before registration. For more information, refer to the brochure and/or syllabus of the Graduate School of Science (see 15. REFERENCES).

5. REQUIREMENTS FOR DEGREE

Master's Program

The master's program consists of a series of lectures, seminars and research for a thesis. To complete the program and to be awarded the Master of Science, students must fulfill the following requirements under the supervision of an academic advisor: (i) 2 years of enrollment, (ii) completion of 30 or more academic credits, including (iii) at least 2 credits from interdisciplinary-study classes and (iv) 16 credits from seminars and research. In addition, it is required to (v) submit a master's thesis and (vi) pass the review and the final examination. In regard to (i), however, students who meet conditions based on the regulation of the Graduate School of Science may complete the program in less than the stipulated period if approved.

Doctoral Program

The doctoral program focuses more on research compared to the master's program. To complete the program and to be awarded the Doctorate of Science, students must fulfill the following requirements under the supervision of an academic advisor: (i) 3 years of enrollment, (ii) completion of 20 or more academic credits, including (iii) 16 credits from seminars and research. In addition, it is required to (iv) submit a doctoral thesis, and (v) pass the review and the final examination. In regard to (i), however, students who meet conditions based on the regulation of the Graduate School of Science may complete the program in less than the stipulated period if approved.



6. FEES AND EXPENSES

As of 2009, application fee is 30,000 yen; admission fee is 282,000 yen; and tuition is 267,900 yen/semester (535,800 yen/year). Students may apply for exemption from the admission fee and/or tuition, or request extension of the payments, but the competition is very keen. Further information on payments will be provided to those who have been admitted to IGPAS after notification of screening result.

Overall living expenses, including rent, utilities, food, transportation, and so forth, may range from 80,000 to 150,000 yen depending on conditions. For more information, refer to the websites of supporting organizations for international students (see 15. REFERENCES).

7. FINANCIAL SUPPORT

Master's Program: MEXT scholarship for 8 students

IGPAS is one of the educational programs selected by the Ministry of Education, Culture, Sports, Science and Technology (Monbukagakusho: MEXT) and assigned priority positions of a Japanese government scholarship, or MEXT scholarship, by University Recommendation. MEXT grants qualified students the 5-year financial support, the 2-year financial support for the master's program followed by the 3-year financial support for the doctoral program, as shown below (as of 2009).

- (i) Monthly stipend of 156,000 yen as a master's student and 157,000 yen as a doctoral student.
- (ii) Flight tickets between the nearest international airport in the country of the student's nationality and Japan
 - when coming to Japan for admission
 - when returning to the home country after completion of the doctoral program
- (iii) Exemption from application, admission and tuition fees.

Applicants for MEXT scholarship must satisfy ALL of the following conditions in addition to the eligibility requirements for IGPAS (see 8. ELIGIBILITY FOR IGPAS).

- (i) Those who currently live outside Japan.
- (ii) Those who were born on or after April 2, 1975.
- (iii) Those who have an intention to complete the master's and doctoral programs within five years from admission.
- (iv) Those who satisfy 2. *Qualifications* (1)-(9) of the application guideline *Japanese Government (Monbukagakusho: MEXT) Scholarship for 2010* (see 15. REFERENCES).

Doctoral Program: IGPAS-SDC fellowship for 2 students

IGPAS-SDC is designed for students with high scholastic standings in collaboration with the Institute for International Advanced Research and Education (IIARE), Tohoku University. IIARE will grant the following special benefits for three years to qualified doctoral students.

- (i) Monthly stipend of 200,000 yen
- (ii) 300,000 yen to compensate for admission fee
- (iii) 250,000 yen/semester to compensate for tuition
- (iv) Research grant of up to 500,000 yen/semester (up to 1,000,000 yen/year)

Applicants for SDC fellowship must satisfy the following condition in addition to eligibility requirements for IGPAS (see 8. ELIGIBILITY FOR IGPAS).

- (i) Those who currently live outside Japan.
- (ii) Those who are strongly motivated to do interdisciplinary research in accordance with the philosophy of IIARE (see 15. REFERENCES).

8. ELIGIBILITY FOR IGPAS

Applicants for IGPAS must satisfy ONE of the following conditions. Contact Academic Affairs Section for IGPAS by **November 30, 2009** if you fall into the category (ii) or (iii) below, or if you are not sure whether you are eligible.

Master's Program

- (i) Those who have graduated, or are expected to graduate, from a university by September 30, 2010.
- (ii) Those who have completed, or are expected to complete, 15 years of school education by September 30, 2010 and have been determined by the Graduate School of Science to have passed classes related to the field of study with good marks.
- (iii) Those who have reached 22 years of age by September 30, 2010 and have been determined by the Graduate School of Science, through individual qualification examinations, to have scholastic ability equivalent or superior to those who have graduated from a university.

Doctoral Program

- (i) Those who have earned, or are expected to earn, a master's degree by September 30, 2010.
- (ii) Those who have engaged in research activities for at least 2 years at an educational or research institution after graduation from a university, or completion of 16 years of school education, and have been determined by the Graduate School of Science, based on the research performance, to have scholastic ability equivalent or superior to those who have earned a master's degree.
- (iii) Those who have reached 24 years of age by September 30, 2010 and have been determined by the Graduate School of Science, through individual qualification examinations, to have scholastic ability equivalent or superior to those who have earned a master's degree.





9. HOW TO APPLY

Step 1: Find faculty members in the field of your interest as candidates for your supervisor.

Applications will not be accepted without the consent of at least one faculty member as a prospective supervisor. The prospective supervisors should be a professor, associate professor, or lecturer (senior assistant professor) affiliated to the Graduate School of Science, Tohoku University. To look for faculty members, refer to the following websites (see 15. REFERENCES).

- Brochure of the Graduate School of Science, Tohoku University
- Departments' websites
- Academic Research Staff at Tohoku University

Step 2: Contact the faculty members directly via email to obtain consent of acceptance.

To contact the faculty members, it is strongly advisable to:

- gather information about the faculty members and their field of research in advance by looking at their publications, research papers, and personal websites.
- include "IGPAS 2010" in the subject line of the email.
- provide as much of your academic background and application information as possible.
- provide the names of other faculty members if contacting more than one at the same time.
- provide the name of your current or latest supervisor as a reference.

Step 3: Prepare the required documents for application (see 10. APPLICATION DOCUMENTS).

Step 4: Send the application documents to the Academic Affairs Section for IGPAS.

All the application documents should be enclosed together, sent **via airmail**, and received by the Academic Affairs Section for IGPAS (see 14. CONTACT INFORMATION) by **December 18, 2009 JST**.



10.APPLICATION DOCUMENTS

- Download the forms indicated by the mark (◆) from the IGPAS website (see 15. REFERENCES).
- Each document should be in English and written in a legible hand or typed. Otherwise, attach an English translation.
- Materials submitted will not be returned.

All Applicants

1	◆ Form#1: Application for Admission	<input type="checkbox"/> Required
2	◆ Form#2: Statement of Reason for Applying for the Program	<input type="checkbox"/> Required
3	◆ Form#3: Research Proposal	<input type="checkbox"/> Required
4	◆ Form#4: Summary of Past Research	<input type="checkbox"/> Required
5	◆ Form#5: Recommendation Letters* ¹ by two references	<input type="checkbox"/> Required <input type="checkbox"/> Required
6	◆ Form#6: Official Recommendation Letter from an academic/research institution you are currently affiliated to or have last enrolled in	<input type="checkbox"/> Required
7	Certificate(s) of (expected) graduation or photocopy of diploma(s) * ²	<input type="checkbox"/> Required
8	Official academic transcript(s) * ²	<input type="checkbox"/> Required
9	Document(s) to prove academic ability issued/written within the last 5 years e.g. bachelor and/or master thesis in full with one-page abstract attached* ³ , research papers published in journals or conference proceedings, papers submitted to undergraduate/graduate courses related to the field of research, score report of Graduate Record Examination (GRE)* ⁴ , and/or equivalent materials	<input type="checkbox"/> Required
10	Document(s) to prove English ability e.g. score report of Test of English as a Foreign Language (TOEFL)* ⁴ , score report of International English Language Testing System (IELTS), certificate of College English Test (CET) in China, result of an English proficiency examination other than the listed above* ⁵ , letter of English proficiency from an English instructor* ⁶ , certificate of medium of instruction from an university* ⁷ , and/or equivalent materials	<input type="checkbox"/> Required
11	Curriculum vitae	<input type="checkbox"/> Required
12	Photocopy of passport of the page(s) with personal information and photograph	<input type="checkbox"/> Required
13	Proof of citizenship other than passport e.g. photocopy of census register, citizenship card, or birth certificate	<input type="checkbox"/> Required
	Supporting materials e.g. certificate(s) of honor, president/dean's list, and/or scholarship	<input type="checkbox"/> Optional

Applicants for SDC Fellowship

14	◆ Form#A: Essay on Interdisciplinary Research	<input type="checkbox"/> Required
15	◆ Form#B: Application from Prospective Supervisor* ⁸	<input type="checkbox"/> Required

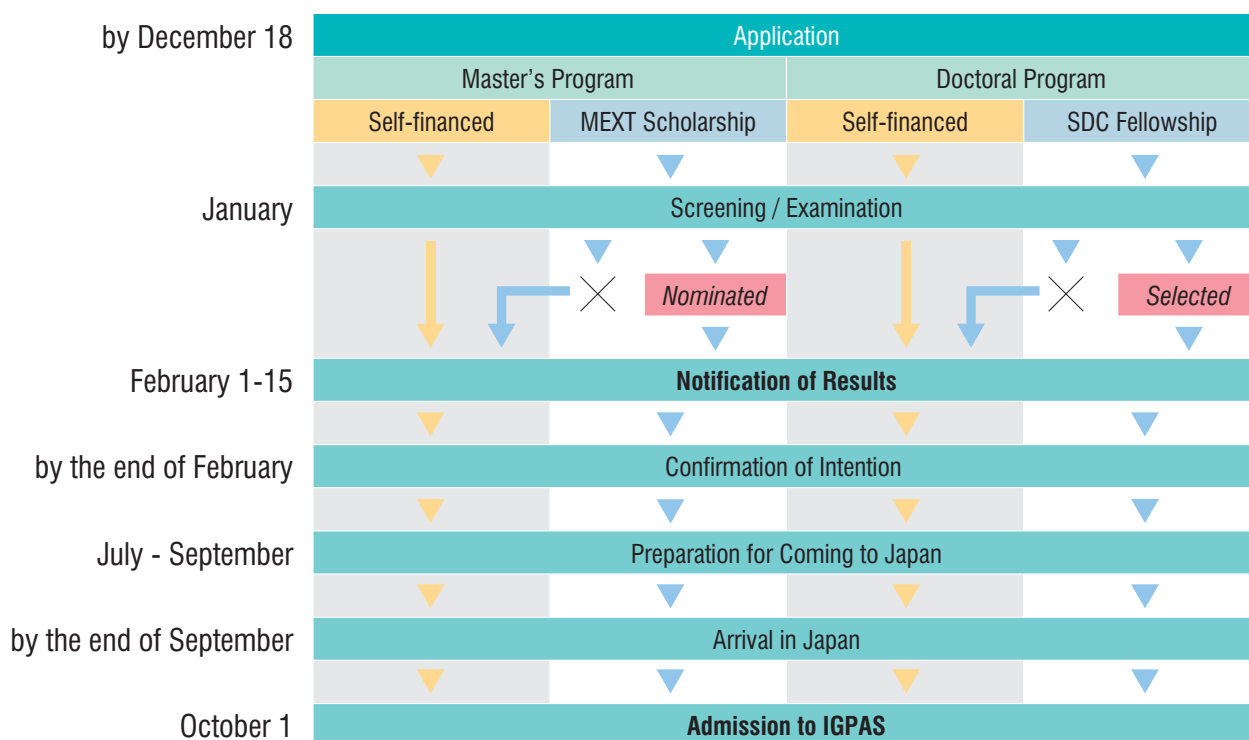


11. SELECTION AND ADMISSION

The Committee for IGPAS will carry out preliminary selection based on scholastic aptitude according to documents submitted and contact the applicants for further evaluation in **January, 2010**.

From those who have applied for MEXT scholarship and passed screening for IGPAS master's program, the Committee for IGPAS will select and recommend 8 candidates to MEXT. The results of admission to IGPAS, the nomination for MEXT scholarship, and the award of SDC fellowship will be sent out to all the applicants from **February 1 to 15, 2010** via email and airmail.

Incoming students are advised to arrive in Japan by the end of September in preparation for the first semester of IGPAS starting on **October 1, 2010**.



- *1 Form#5 and attached letter should be sealed in an envelope by the references and sent to Academic Affairs Section for IGPAS from the applicants with other application documents, not directly from the references.
- *2 Of undergraduate and graduate (if applicable) programs only.
- *3 A thesis in a language other than English is acceptable only if the attached abstract is in English.
- *4 The institution codes of the Graduate School of Science, Tohoku University are 7115 for GRE and 0373-01 for TOEFL.
- *5 A result, certificate or score report, of an English proficiency examination other than TOEFL, IELTS, and CET must be accompanied by supporting material in English such as the bulletin, printouts of official website, or any other item describing the method, content, and grading system of the exam.
- *6 A letter of English proficiency certification must be written and signed by your English instructor who is affiliated to the university or the language school you have attended.
- *7 A certificate of medium of instruction must be an original certificate with the official seal of the university you are currently enrolled in or have attended or with a signature of the responsible official.
- *8 Form#B should be submitted to the Academic Affairs Section for IGPAS directly from your prospective supervisor. Application for SDC fellowship will not be completed without this form.

12.KEY DATES

Application Period	November 2 - December 18, 2009
Notification Period Admission to IGPAS Nomination for MEXT Scholarship Award of SDC Fellowship	February 1 - February 15, 2010
First Day of Fall 2010 Semester	October 1, 2010

13.STUDENT LIFE AT TOHOKU UNIVERSITY

Tohoku University as well as supporting organizations on and off campus offer a variety of services and supports for international students (see 15.REFERENCES).

Even though all IGPAS courses are conducted in English, students are strongly encouraged to become acquainted with the Japanese language, culture, and customs as soon as possible. Japanese language skills are necessary in everyday life, even on campus and useful for various scholarship applications.



14.CONTACT INFORMATION

Please read the application booklet and the IGPAS website (see 15. REFERENCES) thoroughly before inquiring. To inquire by email, please include "IGPAS2010" in the subject line.

Academic Affairs Section for IGPAS Graduate School of Science, Tohoku University

6-3 Aramaki-Aza-Aoba, Aoba-ku, Sendai 980-8578 JAPAN

Tel: +81-22-795-5829 Fax: +81-22-795-6345

E-mail: direct@mail.sci.tohoku.ac.jp





15. REFERENCES

IGPAS: <http://www.sci.tohoku.ac.jp/english/2nd/igpas.html>

Links to the following websites are available at the IGPAS website.

Tohoku University

- **Academic Research Staff at Tohoku University**
<http://db.tohoku.ac.jp/whois/TunvTopE.html>
- **Graduate School of Science and Faculty of Science**
<http://www.sci.tohoku.ac.jp/english/>
- **COE Programs**
<http://www.sci.tohoku.ac.jp/english/2nd/the21coe.html>
- **Brochure of the Graduate School of Science**
http://www.sci.tohoku.ac.jp/docs/world-wide/e_pamph2008.pdf (1.43MB)
- **Link to Departments' Websites**
<http://www.sci.tohoku.ac.jp/english/2nd/departments.html>
- **Online Course Catalog**
<http://www2.sci.tohoku.ac.jp/SciSyllabus2/Sylg.aspx>
- **Graduate Course Syllabus 2009** (mostly in Japanese)
http://www.sci.tohoku.ac.jp/docs/world-wide/gradu_sylla2009.pdf (7.40MB)
- **Institute for International Advanced Research and Education (IIARE)**
<http://www.iiare.tohoku.ac.jp/e/education/index.html>

Supports for International Students

- **Guide for International Students, Tohoku University** (for prospective students)
<http://www.insc.tohoku.ac.jp/guidebook/index.html>
- **Handbook for International Students, Tohoku University** (for incoming students)
http://www.insc.tohoku.ac.jp/handbook/handbook_e/index.html
- **DIRECT, Graduate School of Science, Tohoku University**
<http://www.sci.tohoku.ac.jp/direct/index.html>
- **Japan Student Service Organization (JASSO)**
http://www.jasso.go.jp/index_e.html
- **Student Guide to Japan**
http://www.jasso.go.jp/study_j/sgtj_e.html
- **Scholarships for International Students in Japan**
http://www.jasso.go.jp/study_j/scholarships_sfisij_e.html

Others

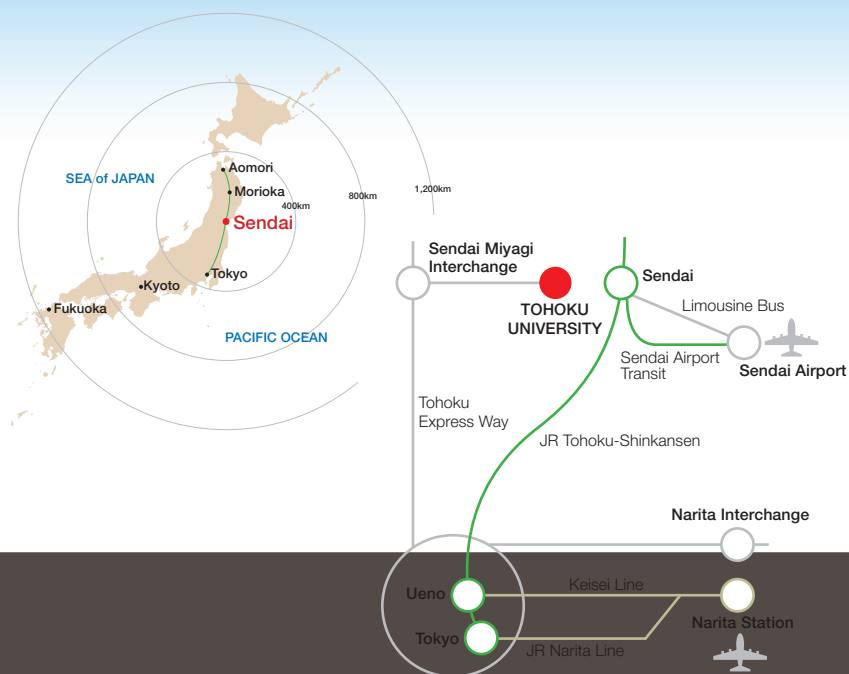
- **Japanese Government (Monbukagakusho: MEXT) Scholarship for 2010 (Research Students)**
http://www.mext.go.jp/component/a_menu/education/detail/___icsFiles/afieldfile/2009/03/30/1253373_2.pdf (125KB)
- **Japan Society for the Promotion of Science (JSPS)**
<http://www.jsps.go.jp/english/index.html>
- **Global COE Program**
http://www.jsps.go.jp/english/e-globalcoe/05_selected_programs_e.html

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URL: <http://www.sci.tohoku.ac.jp/english/2nd/igpas.html>