

IGPAS

International Graduate Program for Advanced Science

2009

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 supports. 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 top-level research at the Graduate School of Science.

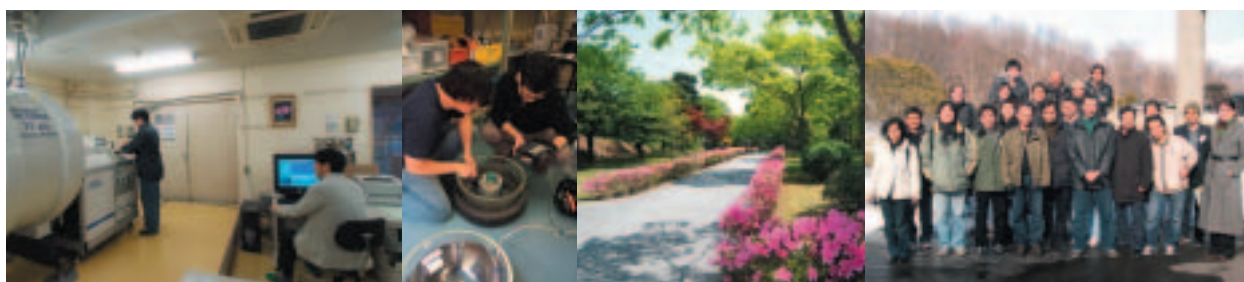
Prospective students will have excellent opportunities to study modern science and conduct cutting-edge research with top-level scientists currently working at Tohoku University.

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, the Faculty 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 conferred Doctorate to international students as well. It has also produced many distinguished leaders into academic and industrial communities.

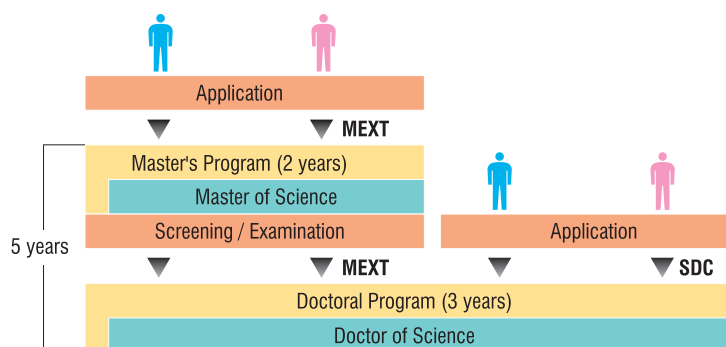
As of October 2008, there are 243 faculty members, including 83 professors, 74 associate professors, 6 lecturers (senior assistant professors), 77 assistant professors and 3 research associates engaging in research and education at the Graduate School of Science. A significant number of international 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. In the interdisciplinary program, students are affiliated to one of six departments in three groups based on 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 2009.

4. COURSES AND CURRICULUM

Each of the six departments in the Graduate School of Science determines own curriculum and course requirements. Availability of classes varies depending on a semester and/or departments. Students may consult their supervisor educational and/or research plan each semester before registration. For more information, refer the brochure and/or syllabi (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 award of 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 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.

Admission to the following doctoral program is not an automatic transition, and those who have passed qualifying examinations may continue their study as IGPAS doctoral students.

Doctoral Program

The doctoral program focuses more on research compared to the master's program. To complete the program and award of Doctor 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 dissertation, and (v) pass the review and 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 2008, 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. Refer to the websites of supporting organizations for international students for more information (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 will grant qualified students a 5-year financial support, 2-year financial support for the master's program followed by 3-year financial support for the doctoral program, as shown below (as of 2008).

- (i) Monthly stipend of 170,000 yen/month for the first year and 160,000 yen for the following years
- (ii) Flight tickets between the nearest international airport in the country of the student's nationality and Japan
 - when coming to Japan before 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 eligibility requirements for IGPAS (See 8. ELIGIBILITY FOR IGPAS).

- (i) Those who currently live outside Japan.
- (ii) Those who are applying for IGPAS master's program.
- (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 2009*.
 - ▶ http://www.mext.go.jp/a_menu/koutou/ryugaku/boshu/08031213/002.pdf (130KB)

Doctoral Program: IGPAS-SDC fellowship for 2 students

IGPAS-SDC is designed for students with high scholastic standings in collaboration with the Institute for the 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/month
- (ii) 300,000 yen to compensate for admission fee
- (iii) 250,000 yen/semester to compensate for tuition
- (iv) Research grants 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 are strongly motivated to do interdisciplinary research in accordance with the philosophy of IIARE.
 - ▶ <http://www.iiare.tohoku.ac.jp/e/education/index.html>

8. ELIGIBILITY FOR IGPAS

Applicants for IGPAS must satisfy ONE of the following conditions. Contact Academic Affairs Section for IGPAS by **December 23, 2008** if you fall in the condition (ii) or (iii), below or if you are not sure.

Master's Program

- (i) Those who have graduated, or are expected to graduate, from a university by September 30, 2009.
- (ii) Those who have completed, or are expected to complete, 15 years of school education by September 30, 2009 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, 2009 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, 2009.
- (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, 2009 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: Contact faculty members directly via email and obtain their consent of acceptance.

- 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.
- To find the faculty members and their field of research, 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
- To contact faculty members, it is strongly advisable to:
 - include "IGPAS 2009" in the subject line of an email.
 - provide as much your academic background and application information as possible.
 - provide a list of faculty members if contacting more than one at once.
 - provide a name of your supervisor as a reference or possibly attach a letter or comment from him/her.

Step 2: Prepare required documents for application (See 10. APPLICATION DOCUMENTS).

- Download application forms (◆) from the website of IGPAS.
▶ <http://www.sci.tohoku.ac.jp/english/2nd/igpas.html>

Step 3: Send application documents to Academic Affairs Section for IGPAS.

- All the application documents should be enclosed together and sent via airmail to Academic Affairs Section for IGPAS (See 14. CONTACT INFORMATION).
- The application must be received by Academic Affairs Section for IGPAS by **January 31, 2009 JST**.
- Each document should be written in a legible hand or typed in English, or an English translation should be attached.
- Materials submitted will not be returned.



10. APPLICATION DOCUMENTS

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 of responsible institution(s)	<input type="checkbox"/> Required <input type="checkbox"/> Required
6	◆ Form#6: Official Recommendation Letter from an institution you have last attended or are currently enrolled/affiliated	<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. Graduate Record Examination (GRE) score* ³ , theses, reports, and/or equivalent materials	<input type="checkbox"/> Required
10	Document(s) to prove English ability issued/written within the last 2 years e.g. International English Language Testing System (IELTS) score* ³ , Test of English as a Foreign Language (TOEFL) score* ³ , theses, reports, 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* ⁴ e.g. census register, citizenship card, or birth certificate	<input type="checkbox"/> Required
Supporting materials e.g. journal articles, conference proceedings, and/or publications		<input type="checkbox"/> Optional

Applicants for MEXT Scholarship

14	◆ Application for MEXT Scholarship	<input type="checkbox"/> Required
15	Two 4.5 x 3.5cm photographs* ⁵	<input type="checkbox"/> Required

Applicants for SDC Fellowship

14	◆ Form#A: Essay on Interdisciplinary Research	<input type="checkbox"/> Required
15	◆ Form#B: Application from Prospective Supervisor* ⁶	<input type="checkbox"/> Required

*1 Form#5 and attached letter should be sealed in an envelope by the references and sent to Academic Affairs Section for IGPAS from applicants with other application documents, not directly from the references.

*2 From all higher educational institutions/programs e.g. college, university and/or graduate school.

*3 GRE, TOEFL, and IELTS test scores should be sent to the Graduate School of Science directly from the responsible organizations. The institution codes are 7115 for GRE and 0373-01 for TOEFL.

*4 It should be original or attested copy if possible.

*5 Taken within the last 6 months with bare head facing the front. Write your nationality and name on the back.

*6 Form#B should be submitted to Academic Affairs Section for IGPAS directly from a prospective supervisor. Application for SDC fellowship is not completed without this form.

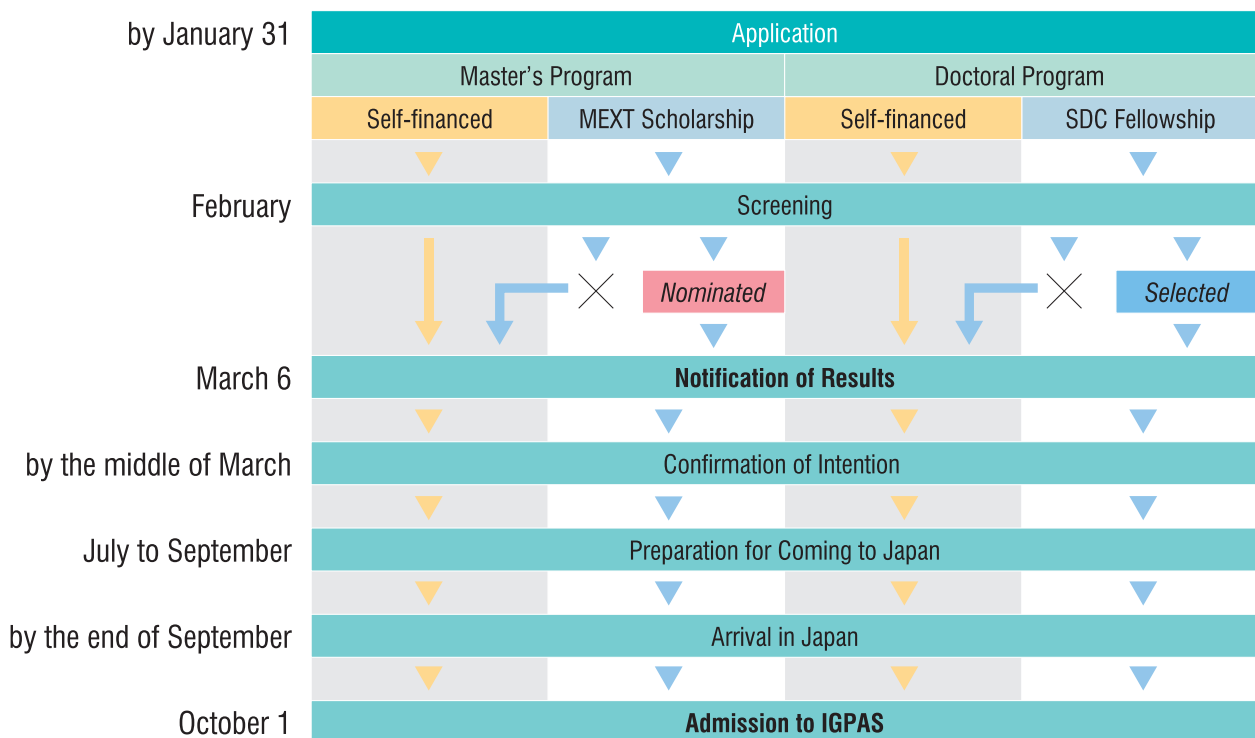


11. SELECTION AND ADMISSION

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 **February, 2009**.

From those who have applied for MEXT scholarship and passed screening for IGPAS master's program, the Committee for IGPAS will select 8 applicants and recommend to MEXT. Results of admission to IGPAS, nomination for MEXT scholarship, and award of SDC fellowship will be sent out to all the applicants on **March 6, 2009** via 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, 2009**.



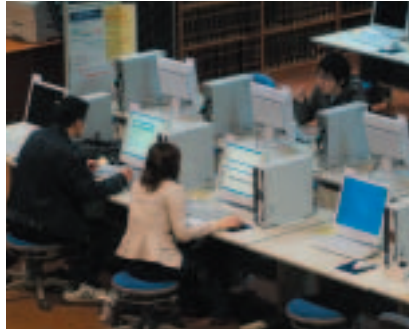
12. KEY DATES

January 31, 2009	Deadline for All Application
March 6, 2009	Notification of Results Admission to IGPAS Nomination for MEXT Scholarship SDC Fellowship
October 1, 2009	First Day of Fall 2009 Semester

13. STUDENT LIFE AT TOHOKU UNIVERSITY

Tohoku University as well as supporting organizations on and out of campus offer 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 Japanese language, culture, and customs as soon as possible. Japanese language skill is necessary in everyday life even on campus and useful for various scholarship applications.



14. CONTACT INFORMATION

To inquire by email, please include "IGPAS2009" 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>

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 Catalogue 2008**
<http://www2.sci.tohoku.ac.jp/SciSyllabus2/Sylg.aspx>
- **Syllabus**
http://www.sci.tohoku.ac.jp/docs/world-wide/gradu_sylla2008.pdf (6.47MB)
- **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://insc.tohoku.ac.jp/handbook/handbook_e/index.html
- **DIRECT, Graduate School of Science, Tohoku University**
<http://sciserv.sci.tohoku.ac.jp/direct/index.html>
- **Japan Student Service Organization (JASSO)**
http://www.jasso.go.jp/study_j/sgtj_e.html
- **Student Guide to Japan**
http://www.jasso.go.jp/study_j/sgtj_e.html

Others

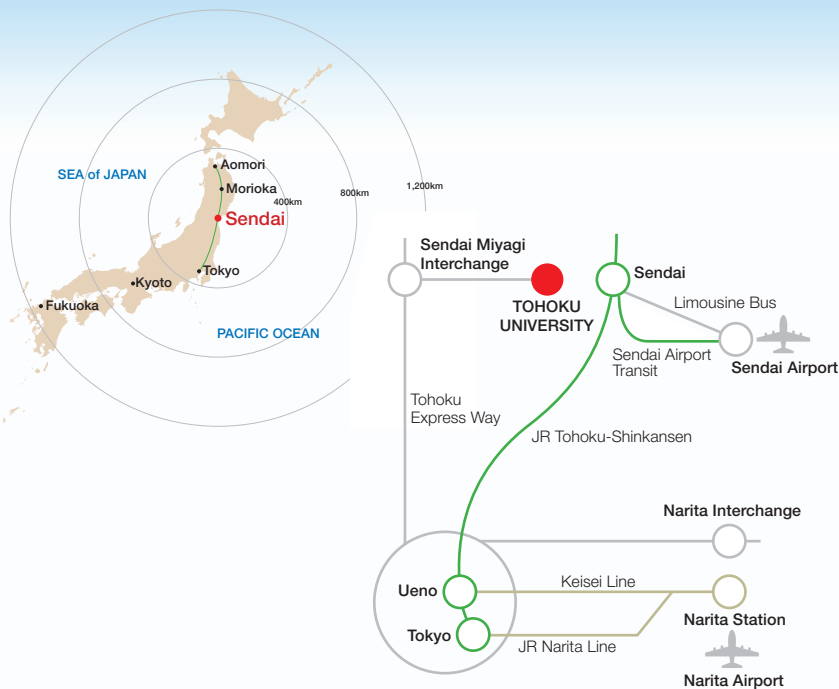
- **Japan Society for the Promotion of Science (JSPS)**
<http://www.jsps.go.jp/english/index.html>
- **Global COE Program**
http://www.jsps.go.jp/english/e-globalcoe/05_selected_programs_e.html
- **Japanese Government (Monbukagakusho: MEXT) Scholarships**
http://www.jasso.go.jp/study_j/documents/scholarships07_e03.pdf (101KB)

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

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