ICLS
International Course of Life Sciences
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1. Introduction

The International Course of Life Sciences (ICLS) is an interdisciplinary graduate program in the Tohoku University Graduate School of Life Sciences. It started in October 2010. ICLS offers courses in English for international students who want to obtain Master’s and Doctor’s degrees from the Graduate School of Life Sciences.

Prospective students will have excellent opportunities to study a wide range of life sciences and conduct cutting-edge research with top-level scientists currently working at Tohoku University.

2. About the Graduate School

Tohoku University is the third oldest university in Japan established in 1907 under the guiding principles of “Research First” and “Open Doors”. The Graduate School of Life Sciences of this University was established in April 2001 to form a new center for life-science education and research. This Graduate School is unique because it allows comprehensive education and research encompassing diverse fields of life sciences, from the molecular and cellular levels to the individual and ecosystem levels. Another characteristic feature of this Graduate School is that it makes bioethics a compulsory subject in order to cultivate future generations of ethically informed life science researchers and technicians. Our aim is not only to promote cutting-edge education and research in each field of life sciences, but also to cultivate human resources with a broad and balanced life science education and sound bioethics. Furthermore, this Graduate School promotes collaborative research among researchers from a wide range of fields, including interdisciplinary research in which brain science and ecological adaptation are key concepts.

Many of our teaching staff participate in “global COE” programs, including the “Basic and Translational Research Center for Global Brain Science” and the “Center for Ecosystem Management Adaptation to Global Change”. In these programs, an overseas dispatch system and international symposiums enrich and enhance postgraduate education and research. Furthermore, a new building for research projects was built in 2009. The old building at the Graduate School has been renovated too, providing this program with outstanding facilities and equipment for life science education and research.
3. About the ICLS program

ICLS is conducted in English and covers a wide range of biological phenomena, from molecules, cells, and organisms to global ecosystems. ICLS is a graduate program that combines a two-year Master’s program and a three-year Doctoral program. Each student is affiliated with one of three departments: (1) Biomolecular Sciences, (2) Developmental Biology and Neurosciences, and (3) Environmental Life Sciences. We expect this program to create internationally active life science experts with cutting-edge knowledge and firm ethics.

The ICLS academic year starts on April 1st (Spring semester) or October 1st (Fall semester). The Graduate School of Life Sciences will accept about 5 students each for the Master’s and Doctoral programs each year.

4. Courses and curriculum

Each of the three departments in the Graduate School of Life Sciences determines its own course requirements and curriculum (see the website: http://www.lifosci.tohoku.ac.jp/english/index.html). Students can consult with their supervisors about classes and research plans for each semester before registration.
5 Degree requirements

5-1. Master’s program

The master’s program consists of lectures, seminars and thesis research. To complete the program and be awarded the Master of Life Sciences, students must fulfill the following requirements under the supervision of an academic advisor: (i) two years of enrollment, (ii) completion of 30 or more academic credits, including six credits from seminars and 10 credits from “Project Research A.” In addition, students must (iii) submit a master’s thesis and (iv) pass the review and the final examination. In regard to (i), however, students who meet conditions based on the Regulations of the Graduate School of Life Sciences may complete the program in less than the stipulated period if approved.

5-2. Doctoral program

The doctoral program is more comprehensive with a focus on project research. To complete the program and be awarded the Doctor of Philosophy (Life Sciences), students must fulfill the following requirements under the supervision of an academic advisor: (i) three years of enrollment, (ii) completion of eight or more credits, including “Project Research B.” In addition, students must (iii) submit a doctoral thesis, and (iv) pass the review and the final examination. Prior to submitting a doctoral thesis, students must have at least one international paper (published or accepted for publication) peer-reviewed by multiple experts. In regard to (i), however, students who meet conditions based on the Regulations of the Graduate School of Life Sciences may complete the program in less than the stipulated period if approved.
6 How much does ICLS cost? (as of April, 2009)

- Application fee: 30,000 JPY
- Admission fee: 282,000 JPY
- Tuition fee: 267,900 JPY/semester (535,800 JPY/year)

Students may apply for exemption for admission and/or tuition fees. However, this exemption is very competitive.

Overall living expenses, including rent, utilities, food, transportation, and so on, may range from approximately 80,000 to 150,000 JPY/month, depending on lifestyle. For more information, refer to the websites of supporting organizations for international students.

- Guide for International Students, Tohoku University
  http://www.insc.tohoku.ac.jp/guidebook/index.html
- Handbook for International Students, Tohoku University
  http://www.insc.tohoku.ac.jp/handbook/handbook_e/index.html
- Japan Student Service Organization (JASSO)
  http://www.jasso.go.jp/index_e.html
  1) Student Guide to Japan
     http://www.jasso.go.jp/study_j/sgtj_e.html
  2) Scholarships for International Students in Japan
     http://www.jasso.go.jp/study_j/scholarships_sfsij_e.html

7 Financial support

- Dean’s grant: 90,000 JPY/semester may be provided ONLY for Doctoral course students who could not get exemption of admission and tuition fees.
- MEXT and JASSO scholarships: prospective students may apply for a Japanese Government Scholarship for privately financed international students (Monbukagakusho: MEXT, http://www.mext.go.jp/component/a_menu/education/detail/_icsFiles/afieldfile/2009/03/30/1253373_2.pdf) or financial support provided by JASSO (Japan Student Services Organization, http://www.jasso.go.jp/index_e.html).
- Tohoku University President Scholarship: The President of Tohoku University provides scholarships for foreign students with excellent grades. Ten students are selected annually in Tohoku University.
- Employment as a research assistant (RA) and teaching assistant (TA): ICLS students may have opportunities to be employed as RAs and/or TAs.
8 Eligibility for ICLS

8-1. Master’s program
(i) Those who have graduated, or expect to graduate from a university before admission.
(ii) Those who have completed, or expect to complete, 15 years of school education before admission and have been determined by the Graduate School of Life Sciences to have passed classes related to the field of study with good marks.
(iii) Those who have reached 22 years of age before admission and have been determined by the Graduate School of Life Sciences, through individual qualification examinations, to have scholastic ability equivalent or superior to those who have graduated from a university.

8-2. Doctoral program
(i) Those who have earned, or expect to earn, a master’s degree before admission.
(ii) Those who have been engaged in research activities for at least two years at an educational or research institution after graduation from a university, or completed 16 years of school education, and have been determined by the Graduate School of Life Sciences, based on their 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 before admission and have been determined by the Graduate School of Life Sciences, through individual qualification examinations, to have scholastic ability equivalent or superior to those who have earned a master’s degree.
9. How to apply

9-1. Find supervisor candidates in the relevant field

Applicants will not be accepted without the consent of at least one faculty member as a prospective supervisor. The prospective supervisor should be a professor, associate professor, or lecturer affiliated with the Tohoku University Graduate School of Life Sciences. To look for faculty members, please visit the following websites:

http://www.lifesci.tohoku.ac.jp/english/biomolecular.html;
http://www.lifesci.tohoku.ac.jp/english/neuro.html;
http://www.lifesci.tohoku.ac.jp/english/environmental.html

9-2. Contact the faculty members directly via e-mail to obtain consent

When contacting faculty members, it is strongly advisable to:
--- gather information about the faculty members and their fields of research in advance by looking at their publications, research papers, and personal websites.
--- include “ICLS” in the subject line of the e-mail.
--- provide as much of your academic background and application information as possible.
--- provide the name of your current or latest supervisor as a reference.

9-3. Prepare the required documents for application (see section 10 below).

9-4. Send the application documents to your future supervisor

He/she will provide you with further information, including the schedule of the entrance examination, if your application is accepted.
10 Documents required for application

- The application form is provided by Graduate School of Life Sciences Student Office (lif-kyom@bureau.tohoku.ac.jp) upon request.
- Each document should be in English and written in a legible handwriting or typed. Otherwise, attach an English translation.
- Materials submitted will not be returned except the Master’s thesis.
  1) Application form for admission
  2) Two passport-type photographs, 3 cm (width) x 4 cm (height)
  3) Official academic transcripts (from undergraduate transcript for the Master’s course; both undergraduate and graduate transcripts for the Doctoral course)
  4) Certificate(s) of (expected) graduation or photocopy of diploma(s)
  5) Research papers and so on.
    5)-1. Publication list, if any.
    5)-2. Master’s thesis or representative research papers (photocopies acceptable).
  6) Research plan for Tohoku University (less than 1,000 words)
  7) Admission fee (30,000 JPY)
  8) Certificate(s) issued by president or equivalent authority indicating period(s) of research performed after graduation under employment by universities or research institutes (optional).
Selection and admission

The entrance examination for ICLS is conducted in Japan. The prospective supervisor schedules the entrance examination at an appropriate time. Applicants are selected based on overall consideration of oral presentation, interview, communication skills, and submitted documents.

Japanese language proficiency is not considered in selection for ICLS. However, incoming students are strongly encouraged to become acquainted with the Japanese language as soon as possible. Japanese language skills are necessary in daily life, and sometimes obligatory to apply for scholarships from private foundations inside Japan.

Contact information

Please visit the ICLS website: http://www.lifesci.tohoku.ac.jp/english/index.html.
If you have further inquiries, please write an e-mail to the Graduate School of Life Sciences Student Office (lif-kyom@bureau.tohoku.ac.jp), including "ICLS" in the subject line.