

Course Number	06020
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2006 「The International Priority Graduate Programs (PGP)」

~Advanced Graduate Courses for International Students~

【1. Profile of the University】

①University Department	Tokyo Institute of Technology (Tokyo Tech)		
②President	AIZAWA Masuo		
③Address (Headquarters)	2-12-1 Ookayama, Meguro-ku, Tokyo 152-8850, Japan		
④Contact	Division	Head, International Student Division	
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⑤Web-Address	http://www.titech.ac.jp/		
⑥Enrollment (only GraduateSchool)	667 (include MEXT's Sholorship Students: 294)		

【2. Outline of the Course】

①C o u r s e	International Bioscience and Biotechnology Course Program
②D e g r e e	Integrated doctoral program (3--5 yrs)
③Graduate Course, Department	Dept. of Life Science, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology
	Address:4259 Nagatsuta-cho, Midori-ku, Yokohama 226-8501, Japan
④Collaboration (Universities, Graduate courses, Departments)	Tokyo Institute of Technology Graduate School of Bioscience & Biotechnology Dept. of Life Science Dept. of Biological Sciences Dept. of Biological Information Dept. of Bioengineering Dept. of Biomolecular Engineering
⑤Q u o t a	18 (include: 7 MEXT's Scholarship students) (include 8 Japanese students)
⑥Faculties	67 (Full-time(only for this course): 55 Full-time(at the department offering this course): 7 / Part-time: 5)
⑦Representative of the Course	Job Title: Dean of Graduate School of Bioscience and Biotechnology
	Name: HIROSE Shigehisa

[3. Contents of the Course]

Outline of the program

Research on biological science and technology is now facing a fierce competition worldwide. One of the important challenges in the field is to foster human resources with enough skills to develop and perform the various core technologies of global standards. Regarding the outstanding development in Asia especially in the field, it has a great significance that Japan takes a leading role in fostering high-level human resources. In such global dynamics, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, by launching a new program “International Bioscience and Biotechnology Course Program” within our “Integrated Doctoral Program” aims to foster mainly the excellent Asian students in its various and sophisticated educational programs by letting them learn the forefront of science and technology which will become a base of medical and environmental industries, the future important fields relative to bioscience and biotechnology. At the same time, by deepening an exchange between international students and Japanese students, we turn out high level researchers and engineers who will flourish as leaders nationally and globally.

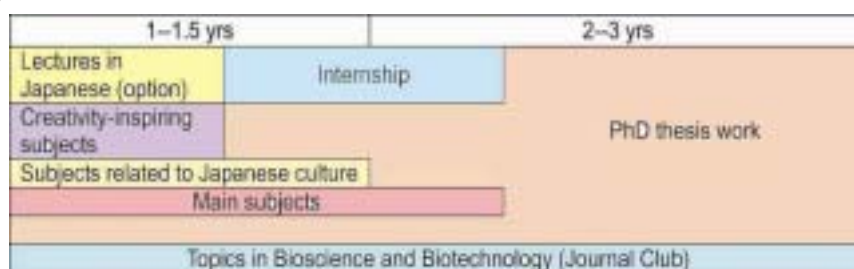
Contents of the program

“International Bioscience and Biotechnology Course Program” aims to enhance the students’ wide knowledge and culture in the field of bioscience and biotechnology. The contents relating to students’ educational research are basically conducted all in English.

1) Curriculum

- In order to provide an open opportunity to learn various specialties in bioscience and biotechnology at students’ own will, lectures of wide range will all be held in English and all the special subjects are open to both international and Japanese students.
- Lectures to learn Japanese culture are offered in English as recommended subjects within the school academic framework for international students.
- Lectures to learn Japanese language are offered as elective subjects within the school academic framework for the international students who wish to work in Japan after the completion of the course.
- Internship at research institutes or corporations in Japan is offered as a compulsory subject.
- Directed Collaboration Works are offered as compulsory subjects at Art and Crafts Education and Research Support Center at Suzukakedai campus. Through the joint academic activities with Japanese students, we enhance the students’ international understanding as well as creativity necessary to become leaders in the field of science and technology in the future.

The program will be held under the schedule written below.



2) Requirements for completion of the course

- A student must be certified a Master’s degree while attending the course, and he/she must attend a graduate course for more than 3 years.
- A student must acquire more than 26 credits of special and general subjects shown below. (Colloquium and internship are not counted.) *See the chart below.
- A student must acquire more than 4 credits of Bio-Internship. (Bio-Internship: 3-6 months project at research institutes or corporations in Japan.) *compulsory
- A student must acquire 2 credits of Directed Collaboration Works. *compulsory
- A student must take all of the required colloquium credits while attending the course.
- A student must pass mid-term examination, Doctoral thesis review and final examination.

Also, to receive a Master’s degree while attending the course, a student is required to acquire 30 credits of all colloquiums, special and general subjects and then to pass the examination of the report session. Students who are admitted to obtain Master’s degree must take the qualifying

examination for doctoral course immediately, and those who pass it will become students of doctoral course.

Special/General Subjects (conducted in English)	
Advanced Biorganic Chemistry	Advanced Biology
Advanced Molecular Biology	Advanced Biotechnology Frontiers
Advanced Bioengineering	Advanced Biochemistry
Advanced Life Science Frontiers	Asymmetric Synthesis
Advanced Cell Biochemistry	Advanced Biophysical Chemistry
Bioscience and Biotechnology Topics 1	Bio-nanomechanics
Bioscience and Biotechnology Topics 2	Genome-based Drug Discovery
Synthesis of Bioactive Substances	Topics on Japan, advanced course
Bio-Internship I	Bio-Internship II
Advanced Course of Biological Recognition and Signaling	Structure and Function of Biological Supramolecules
Directed Collaboration Works	Japanese
Bioscience and Biotechnology International Communication	Advanced Course of Bioscience Communication
Seminar : Language and Culture I	Seminar : Language and Culture II
English Academic Reading	English Academic Writing
Advanced Oral Expression in English	English Academic Presentation

3) Tutorial for Doctoral Thesis

Regarding the tutorial for doctoral thesis, each student is guided by the research guidance committee, which consists of three members; a principal teaching staff of the course, an assisting teaching staff of other laboratory, and one mentor from the university of their graduation.

In addition, before coming to Japan, each student is given a preliminary program guided by a principal teaching staff according to his/her needs. After his/her joining of the program in Japan, both the teaching staff of the course and his/her principal teaching staff give guidance for registration.

4) Follow-up System

On a periodic basis, all the teaching staff of the course share the responsibility for giving advices to each student regarding his/her career plan and academic life. Through these, we improve each subject as well as the instructional contents of the research guidance committee. As a school system at large, both International Student Center and Student Support Division also take a role in counseling, mental health care and career plan support. Additionally, we also follow up students after their completion of the course with continuous care and instruction.

Eligible Countries, Subscription and Selection Process

Eligible Countries:

Asian countries, especially the countries where there are centers of Tokyo Tech (China including Hong Kong, Korea and ASEAN countries.)

Subscription Process:

For those applicants who are nominated from the universities of our partnership or other principal universities of Asian countries, teaching staff of the graduate school will make a direct interview test on their English language skills and their specialties. Also, the teaching staff of this course will make interviews several times through the internet, followed by the submission of the required documents by the applicants.

Selection Process:

The applicants are to be evaluated based on their academic records including English language skills at their graduating schools, their English proficiency performed at the interviews, their academic skills in the filed, their potential for research performance as well as their future objective and ideas. The final decision on the successful candidates is determined from the top candidates within the course capacity.