

Course Number	06024
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## 2006 「International Priority Graduate Programs (PGP)」

~Advanced Graduate Courses for International Students~

### 【1. Profile of the University】

① University Department	Tokyo Institute of Technology (Tokyo Tech)		
② President	AIZAWA Masuo		
③ Address (Headquarters)	2-12-1 Ookayama, Meguro-ku, Tokyo 152-8550 Japan		
④ Contact	Division	Head, International Student Division	
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	TEL/FAX Number	+81-3-5734-3027, 7667 / +81-3-5734-3677	
⑤ Web Address	<a href="http://www.titech.ac.jp">http://www.titech.ac.jp</a>		
⑥ Enrollment (only Graduate School)	667 (including MEXT Scholarship Students: 294)		

### 【2. Outline of the Course】

① Course	Tokyo Tech-Tsinghua Joint Graduate Program (Twinning Program)
② Degree	Master's program (2.5 yrs at Tokyo Tech and 3 yrs at Tsinghua) + doctoral program (3 yrs)
③ Graduate Course, Dept.	Dept. of Biomolecular Engineering, Graduate School of Bioscience & Biotechnology
	(Address) 4259 Nagatsuda, Midori-ku, Yokohama, Kanagawa 226-8503 Japan
④ Collaboration (Universities, Graduate courses, Dept.s)	Tokyo Institute of Technology, Graduate School of Science & Engineering Dept of Chemistry & Materials Science, Dept of Metallurgy & Ceramics, Dept. of Organic & Polymeric Materials, Dept. of Electrical & Electronic Engineering, and Dept. of Physical Electronics
	Tokyo Institute of Technology, Graduate School of Bioscience & Biotechnology Dept. of Life Science, Dept. of Biological Science, Dept. of Biological Information, and Dept. of Bioengineering
	Tokyo Institute of Technology, Graduate School of Decision Science & Technology Dept. of Human System Science, Dept. of Value & Decision Science, Dept. of Industrial Engineering & Management, and Dept. of Social Engineering
	Tsinghua University (China) Dept. of Materials Science & Engineering, Dept. of Chemical Engineering, Dept. of Life Science, School of Medicine, School of Public Policy & Management, School of Law, and School of Humanities & Social Sciences
⑤ Quota	30 (24 master's and 6 doctoral students) (including MEXT Scholarship Students: 8 master's and 2 doctoral students) (including Japanese : 12 master's and 3 doctoral students)
⑥ Faculties	174 in total (Full-time(only for this course): 133; Full-time(at the department offering this course): 39; Part-time: 2)
⑦ Representative of the Course	Job Title: Dean of Graduate School of Bioscience & Biotechnology, Tokyo Tech
	Name: Prof. HIROSE Shigehisa

### 【3. Contents of the Course】

#### 【Outline of the Program】

When China, a country rapidly becoming the world's greatest superpower in the early 21st century, and Japan, a leader in Asia, closely collaborate in advanced science & engineering fields and build a relationship of trust, it will not only be a great contribution to the development of the industry, economy, and culture of both countries but also to the entire world. In order to realize this, individuals who can play an active global role with thorough knowledge of the language, culture and society of both countries are required. This program is a joint effort established through the collaboration of two top science & technology universities, Tsinghua University in China and the Tokyo Institute of Technology in Japan. With this program, we will mutually develop individuals to these objectives.

#### 【Contents of the Program】

Tokyo Tech-Tsinghua Joint Graduate Program is a twinning program that educates and confers degrees for Chinese and Japanese students enrolled in three advanced interdisciplinary courses of both universities: Nanotechnology, Bioscience & Biotechnology and Decision Science & Technology. Lectures are generally provided in Japanese or Chinese. Sometimes English is also used as needed.

##### 1) Curriculum

Students in the master's degree program will be registered at both universities and are required to earn credits, conduct research, and submit a thesis to both universities to earn the degree from both universities. The universities offer several common subjects incorporated into their credit system. Students must earn the remaining credits from their respective universities. Students in the doctoral program will be required to conduct research at both universities and may submit a thesis to one of the universities to earn the doctoral degree. Since the students participating in this program are Chinese and Japanese students, a sufficient amount of Chinese/Japanese education will be offered in advance. Students in this program will be taught by a pair of instructors from both universities so that they can conduct their research and prepare for their thesis while moving between the two universities.

##### 2) Departments

- Dept.s participating in the Nanotechnology course are five Dept.s within the Tokyo Tech Graduate School of Science & Engineering and related programs of Tsinghua University Dept. of Materials Science & Engineering.
- Dept.s participating in the Bioscience & Biotechnology course are five Dept.s within the Tokyo Tech Graduate School of Bioscience & Biotechnology and related programs of Tsinghua University Dept. of Chemical Engineering, Dept. of Life Science, and School of Medicine.
- Dept.s participating in the Decision Science & Technology course are four Dept.s within the Tokyo Tech Graduate School of Decision Science & Technology and related programs of Tsinghua University School of Public Policy & Management, School of Humanities & Social Sciences, and School of Law.

##### 3) Standard Education Schedule

The joint program's standard schedule (master's program) from student transfer and graduation from both universities was set as follows by an agreement with Tsinghua University in 2004.

	Tsinghua Students	Tokyo Tech Students
2004.3	Tsinghua University's entrance examination Qualified applicants are expected to graduate from the university for admission to the graduate school of Tsinghua University.	
2004.6	Submission of application for the Graduate School of Tokyo Tech	
2004.8	Tokyo Tech's entrance examination (corresponds to the examination for the International Graduate Course)	Tokyo Tech's entrance examination Qualified applicants are expected to graduate from the university or have a bachelor's degree.
2004.9	Admission to Tsinghua University Lectures and research for the joint program begin at Tsinghua University.	
2004.12	Application for the graduate school of Tokyo Tech	Application for the graduate school of Tsinghua University. It is possible to apply for an exemption

		for the written examinations.
2005.3		Graduation from university
2005.4	Admission procedures for Tokyo Tech Continue to attend lectures and conduct research.	After admission to the graduate school of Tokyo Tech, move to Tsinghua University for an interview. Lectures and research start at Tsinghua University.
2005.9		Students passing the interview proceed with admission procedures. Continue to attend lectures and conduct research.
2006.4	Move to Tokyo Tech and continue to attend lectures and conduct research.	Return to Tokyo Tech and continue to attend lectures and conduct research.
2007.2	Thesis presentation at Tokyo Tech	Thesis presentation at Tokyo Tech
2007.4	Return to Tsinghua University and continue research.	Move to Tsinghua University and continue research.
2007.7	Thesis presentation at Tsinghua University and receive a degree.	Thesis presentation at Tsinghua University and receive a degree.
2007.9	Receive a degree at Tokyo Tech.	Thesis presentation at Tokyo Tech and receive a degree.

After completion of the above schedule, revisions were made to the number of years required for the master's degree program at Tsinghua University and the regulations at Tokyo Tech. We are making adjustments for each course to incorporate these changes and preparing a schedule that advances the students' visit to Japan. The schedule for the doctoral programs is flexible.

#### 4) Subjects Common to Both Universities

The subjects jointly offered by both universities in 2006 are as follows.

Course	Nanotechnology	Bioscience & Biotechnology	Decision Science & Technology
Subject	Topics in Quantum Physics	Advanced Biofunctional Materials	Topics in Science & Modern Society
	Topics in Nanomaterials Science	Advanced Biochemistry	Special Exercise in Management Engineering I
	Nanomaterials Electronics	Advanced Molecular Biology	
	Nanomaterials Measurement	Bioengineering Now	
	Soft Materials	Advanced Biology	
	Topics in Quantum Chemistry		

#### 5) Joint Program Office at Tsinghua University

In order to support both universities' joint program students and instructors visiting China for a short time for intensive lectures or staying for longer periods, we opened an office at Tsinghua University with full-time clerical assistants.

#### 6) Follow-Up System

Instructors for the respective courses share responsibilities and regularly advise students on their career path and research activities. Both universities are closely collaborating to find and solve problems. Also, Tokyo Tech provides support to international students for academic activities, mental health, and career through its International Student Center and Student Services Center. In addition, after the completion of the courses, we continue to offer services and instruction to international students after their return home.

#### 【Target Country and University/Recruitment and Selection Methods】

Country and University: China, Tsinghua University (including admitted students)

Recruitment Method: For master's degree program students, Tokyo Tech's joint program selection committee chooses candidates from Tsinghua University students enrolled in the joint program based on academic achievement, research capability, and language ability in English and Japanese. For doctoral program students, we conduct an open recruitment for students who will enroll (or are already enrolled) in the doctoral program at Tsinghua University. Tokyo Tech's joint program selection committee chooses the candidates based on merit, referring to the materials provided by Tsinghua University.