

東京工業大学
Tokyo Institute of Technology

Innovative Learning and Global Education

— Experiences of Tokyo Institute of Technology —



Kiyoshi OKADA
Executive Vice President
Tokyo Institute of Technology

JICA-TICAD VSide Event (JICA Yokohama International Center: 2013.05.31)

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Overview

1881 Founded as Tokyo Technical School
1929 Elevated to a degree-conferring university,
Tokyo Kogyo Daigaku (Tokyo Institute of Technology)
2004 Reorganized as an independent administrative institution
“National University Corporation Tokyo Institute of Technology”

As of May 1, 2012	Number (rounded)
Undergraduate Students (International Students)	4,800 190
Graduate Students (International Students)	5,100 910
Research Students	100
Academic Staff	1,100
Administrative Staff	480

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Undergraduate Schools (3)

- School of Science
- School of Engineering
- School of Bioscience and Biotechnology

Graduate Schools (6)

- Graduate School of Science and Engineering
- Graduate School of Bioscience and Biotechnology
- Interdisciplinary Graduate School of Science and Engineering
- Graduate School of Information Science and Engineering
- Graduate School of Decision Science and Technology
- Graduate School of Innovation Management

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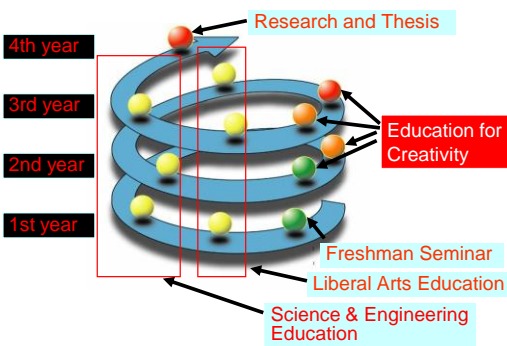
Education for Creativity

Cultivating student creativity through hands-on design and fabrication or *Monotsukuri*

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Spiral-Up Curriculum for UG



4th year

3rd year

2nd year

1st year

Research and Thesis

Education for Creativity

Freshman Seminar


Liberal Arts Education

Science & Engineering Education

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Mechanical Engineering Literacy



Processing and Measurement experience coupled with Safety Instruction

machining and hands-on practice

accuracy measurement

How to Process Objects

Experiencing Engineering Dynamics and Mechatronics

assembly of a gyro-stabilized bike

electronic control circuit

How to Control Objects

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Classes in Several Departments

Electrical and Electronic Eng.
human power generation contest

Mech. Aero. Eng.
vaudeville robot

Mech. Intelligent Sys. Eng.
intelligent system creation

Inorganic Materials Eng.
ceramic radio

Metallurgical Eng.
pipe frame car race

Civil Eng.
bridge design competition

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Bio-Contest

● 168 students / 20 groups
● Development of a bioscience and technology learning tool for kids

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Education for Globalization

Various education programs for globalization of students

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Higher Education Open to the World

Global Leaders

Young Researchers

Graduates

Undergraduates

Students exchange and Internships (ASPIRE, IDEA)

International Graduate Program
Advanced studies leading to Ph.D.
Classes in English, Scholarships

YSEP
One year exchange program for senior students

Global Edge Institute
New career system for academia

Integrated Master-Doctor Program
Doctoral degree in a shorter period

Joint Graduate School Programs
Tsinghua U (China)
NSTDA (Thailand)

Creativity Education

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YSEP (Young Scientist Exchange Program)

- Research oriented education for undergraduate students (senior)
- About 30 world-wide students participate each year.
- Lectures in English language

The Program includes:

- Individual research project at research lab under the guidance of a faculty supervisor.
- Japanese language and society/culture courses.
- Opportunities for a scholarship provided by Japan Student Services Organization (JASSO).
- A variety of events such as Factory Study Tours.

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Tokyo Institute of Technology – Tsinghua University Joint Graduate Program

- The first “dual degree” program on graduate level between China and Japan
- Joint supervision by professors of both universities
- Master’s degrees awarded by both universities in 3 years
- Expenses in Japan supported by scholarship

Sep.'08 Oct.'09 Sep.'10 Aug.-Sep.'11

Tsinghua University
Studying in China 1-1.5 year Studying in China 0.5 year

Lectures by Tokyo Tech Professors

Tokyo Tech
Studying in Japan 1-1.5 year

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Integrated Master's-and-Doctoral Program

Integrated master's-and-doctoral course of study allows for earning both degrees in three or four years.

Graduate students of this program can obtain Ph.D. degrees through an education program including long-term study experience in foreign countries and internship in companies

Integrated Master's-and-Doctoral Program

Doctoral course
3 years

➔

Integrated course
3-4 years

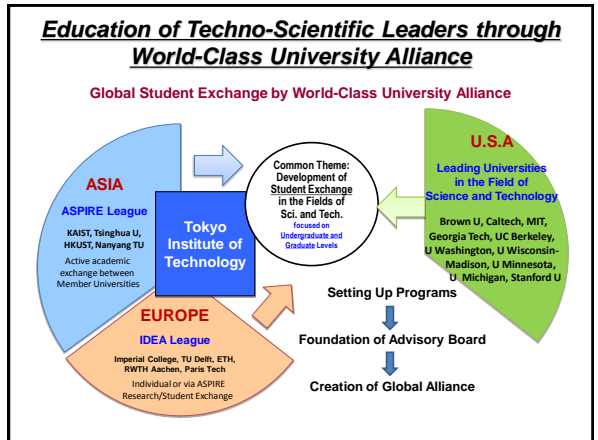
Master's course
2 years

➔

Integrated course
3-4 years

Compulsory subjects:
Study abroad / Internship
Ph.D. thesis

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International Students

Country	Student	Country	Student
Algeria	7	Benin	1
Egypt	4	Cameroon	1
South Africa	4	Ethiopia	1
Kenya	2	Ghana	1
Senegal	2	Sudan	1
Tunisia	2		

Total 1,257
(ca.13%)
(As of May, 2013)

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Tokyo Institute of Technology continues to innovate education

THANK YOU!