Application procedure for regular applicants

For regular applicants, the Department of Precision Engineering offers two types of selection both for the master’s and PhD programs, which are regular selection based on written exams and document-based selection.

Applicants for these selections must obtain and submit the application form to the Graduate School of Engineering Office.

Application procedure for MEXT (Monbukagakusho) scholarship applicants

The applications from MEXT scholarship applicants are directly handled by the Graduate School of Engineering Office, not by the Department of Precision Engineering.

For further information:

Admissions Information, Department of Precision Engineering: http://www.pe.t.u-tokyo.ac.jp/en/admission/

Admissions Information, School of Engineering: https://www.t.u-tokyo.ac.jp/soee/admission/

The Department of Precision Engineering, The University of Tokyo has a long and remarkable history since 1886. Leading cutting-edge education and research related to precision engineering are carried out, while international academics consisting of students and researchers are brought together and honed to create an expanding network of sought-after experts.
Admission

Application procedure for regular applicants

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Admissions Information, School of Engineering: https://www.t.u-tokyo.ac.jp/soee/admission/
Precision Engineering discusses methodologies on the approach to targets rather than the physical objects themselves. The department handles an extensive range of advanced technology from information devices to themselves. The department promotes education and research on production and the synthesis of products and services, as well as intelligent and robotic systems and biomedical devices.

### Curriculum

#### Mission

- **Bioengineering**
- **Biomechanics**
- **Biomedical devices**
- **Intelligent machines/robots**
- **Production science**
- **Automation and robotics**
- **Information technology**
- **Measurement and control**

#### Research fields:

1. The development of fundamental technology for production science, such as precision measurement, precision machining, microsystems, biomedical devices, mechatronics, and design and production systems.
2. Research into methodologies on the synthesis of intelligent machines, information and knowledge systematization for products, services, and their production processes.
3. Application of the above to manufacturing, biomedical fields, and service systems.

#### Sensing technology

- **Optical measurement**
- **Coordinate metrology**

#### Biomedical precision engineering

- **Medical precision engineering**
- **Neuroengineering**
- **Theory of measurement and analysis of biomedical signals**
- **Engineering psychology**

#### Polymer processing

- **Advances in micromachining**
- **Additive manufacturing science**
- **Ultra-precision machining**
- **Sensing machines**

#### Microsystems

- **Applied microfluidics systems**
- **MEMS/NEMS process**

#### Electromechanical control systems

- **Mechatronics for human and engineered environments**
- **Cooperative artificial systems**
- **Dynamic agent**
- **Advanced robotics**

#### Design and production systems

- **Special lecture on intelligent construction system**
- **Society and technology methodology**
- **Engineering foundation for synthesis of artifacts I–II**
- **Geometric modeling**
- **Geometry data processing**

#### Design and project-based learning

- **Special lecture on information and communication**
- **Practice in international workshop on precision engineering**
- **Advanced practice of precision engineering**
- **Practice in international workshop on presentation of research work**
- **Advanced lectures on precision engineering I–V**

#### Precision engineering production factory tour

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Precision Engineering discusses methodologies on the approach to targets rather than the physical objects themselves. The department handles an extensive range of advanced technology from information to manufacturing technology and services in order to create a sustainable society based on harmony between man, resources, and the environment. Founded on the basic disciplines of mechanical physics, mathematical information, and measurement and control, the department promotes education and research on production and the synthesis of products and services, as well as intelligent and robotic systems and biomedical devices.

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**Sensing technology**

- Optical measurement
- Coordinated metrology

**Biomedical precision engineering**

- Medical precision engineering
- Neuroengineering
- Theory of measurement and analysis of biomedial signal
- Experimental physics

**Polymer processing**

- Advances in microengineering
- Artificial manufacturing science
- Ultra-precision machining
- Joining manufacturing

**Electromechanical control systems**

- Electro-mechanical systems
- Advanced robotics
- Special lecture on intelligent construction system

**Design and production systems**

- Special lecture on automation and dismantling
- Advanced practical practice on precision engineering
- Advanced lectures on precision engineering I−V
- Precision engineering production factory tour

**Production science**

- Design and production systems
- Measurement and control

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**Research fields:**

1) The development of fundamental technology for production science, such as precision measurement, precision machining, microsystems, biomedical devices, mechatronics, and design and production systems.
2) Research into methodologies on the synthesis of intelligent machines, information and knowledge systematization for products, services, and their production processes.
3) Application of the above to manufacturing, biomedical fields, and service systems.

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**Missions**

- Production science and systems
- Experimental facilities in Hongo Campus

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**Curriculum**

- Architecture and Engineering
- Manufacturing and Design
- Mechatronics and Systems
- Biomedical Engineering

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