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.
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Parramatta introduces fundamental techniques 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 science and the synthesis of products and services, as well as intelligent and robotic systems and biomedicial devices.

### Biomedical engineering production factory tour
- Advanced lectures on precision engineering I–V
- Advanced practice of precision engineering
- Practice in international workshop on precision engineering
- Special lecture on i-Construction Systems for infrastructure projects
- Geometry data processing
- Geometric modeling
- Design and production systems
- Coarse lecture on i-Construction Systems for infrastructure projects
- Kinematic modeling
- Geometric data processing
- Advanced practice of precision engineering
- Advanced lectures on precision engineering I–V

### Research fields:
1. The development of fundamental technology for production science, such as precision measurement, precision machining, microsystems, intelligent machines, 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 services systems.

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### Research fields:

#### Mechanical physics
- Mechanical technology
- Materials science
- Measurement and control

#### Information technology
- Information processing
- Computer science
- Artificial intelligence

#### Production technology
- Production systems
- Intelligent machines/robots

#### Biomedical science
- Biomedical engineering
- Biomechanics
- Artificial intelligence

#### Mechatronics
- Robotics
- Mechatronics
- Control engineering

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### Curriculum

#### Production science
- Design and production systems
- Precision measurement
- Microsystems

#### Intelligent machines/robots
- Mechanical science
- Precision machining
- Microsystems

#### Biomedical devices
- Mechatronics
- Psychology
- Neuroscience

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### Research areas

#### Production systems
- Advanced manufacturing systems
- Microsystems
- Nanoscale technology

#### Intelligent machines/robots
- Mechatronics
- Robotics
- Artificial intelligence

#### Biomedical devices
- Biomedical engineering
- Neuroengineering
- Biomedical precision engineering

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### Educational activities

#### Study tours
- Precision engineering production factory tour

#### Lectures
- Advanced lectures on precision engineering I–V
- Advanced practice of precision engineering
- Practice in international workshop on precision engineering
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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 services to manufacturing technology and services in order to create a sustainable society based on harmony between man, manufacturing technology and services, 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 science and the synthesis of products and services, as well as intelligent and robotic systems and biomedicale devices.

### Research fields:
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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.

### Biomedical engineered systems
- Medical-precise robot
- Design/development of products and services
- Cognitive science in engineering

### Advanced mechanical engineering
- Electromechanical control systems
- Mechatronics for human environments and engineered environments
- Cooperation of artificial systems
- Dynamic agents
- Advanced robotics
- Special lecture on intelligent construction system - Asama, Nagatani, Yamashita

### Design and production systems
- Society and design methodologies
- Sustainable design methodology
- Engineering foundation for synthesis of artifacts I-I
- Geometric modeling
- Geometry data processing
- Special lecture on C-Construction System for infrastructure projects - Yamashita
- OK Design thinking

### Practice and project based learning
- Special lecture: Reconstructing and dismantling Practice in international workshop on precision engineering
- Advanced practice of precision engineering
- Advanced lectures on precision engineering I-V

### Precision engineering production factory tour
- Site visits for professional students for an individual workshop on precision engineering and manufacturing
- Project classes administered by the faculty members of the department.

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