

# Osaka University, Graduate School of Engineering Doctoral Degree Programs Conducted in English

[Enrollment in October 2024]

< Internal Application >

For Students who complete Master's Degree  
of one of the following programs in September 2024

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# **Biotechnology Global Human Resource Development Program for Industry-University Co-Creation**

## **1. Program Summary**

The aim of this program is to expose young scientists to state-of-the-art research techniques and in-depth knowledge of advanced biotechnology, chemistry, physics and bioengineering, so that they may harness the potential of biotechnology applicable to Japanese industries as well as academia.

## **2. Requirements for the Completion of the Course and Obtaining the Degree**

- (1) Requirements for completion of the course: completion of Seminar on Frontier Research Proposal to acquire two compulsory credits; completion of Courses of Frontier Biotechnology Exercises and Frontier Biotechnology Seminars to acquire a minimum of four credits; successful defense of doctoral dissertation and passing of the final examination of the program. Improving Japanese skill is also required during the course.
  
- (2) Degree: Doctor of Philosophy in Engineering

## **3. Admission Quota**

Max. 20

## Chemical Science Course

### 1. Program Summary

The present Chemical Science Course (CSC) at the Graduate School of Engineering offers postgraduate students for the Doctoral degree covering all aspects of “Chemistry”, the center of science. “Chemistry” provides a broad spectrum of information and provides the indispensable basis that underlines our materials society, and keys for the future of society.

### 2. Requirements for the Completion of the Course and Obtaining the Degree

- (1) Requirements for completion of the program: completion of one compulsory course of Research Proposal Seminar Frontier Applied Chemistry 1-4 for a total of no less than 4 credits; satisfactory performance in the mid-term review of the Special Research; successful defense of the doctoral dissertation; and passing of the final examination of the program.
  
- (2) Degree: Doctor of Philosophy in Engineering

### 3. Admission Quota

A few

## **International Priority Graduate Program on Applied and Engineering Physics**

### **1. Program Summary**

The objective of this program is to equip new generation of young scientists with fundamental knowledge and cutting-edge research skills in Applied and Engineering Physics. By elucidating the fundamental physical, chemical and biological properties of materials, and designing materials with novel functions, we open a new way to the development of nanotechnology, photon technology, and biomedical engineering. We also aim to develop and produce international collaboration through the creation of an intellectual human resources network. Furthermore, by utilizing interdisciplinary organizations and international networks, we contribute to other socially important fields such as new industries, environment, and energy problems.

### **2. Requirements for the Completion of the Course and Obtaining the Degree**

- (1) Requirements for completion of the course:
  - ① earn no less than six total academic credits
  - ② completion of the Special Research
  - ③ defense the doctoral dissertation and passing the final examination of the course
  
- (2) Degree: Doctor of Philosophy in Engineering

### **3. Admission Quota**

A few

# **International Program of Materials and Manufacturing Science**

## **1. Program Summary**

The aim of this program is to educate international students to become advanced scientists or engineers of the new generation with basic knowledge and state-of-the-art research skills related to materials and manufacturing science. This program fosters advanced engineers and scientists who have a sophisticated perception of the engineering flow, from materials development to product manufacture.

## **2. Requirements for the Completion of Course and Obtaining the Degree**

(1) Requirements for completion of the course: Completion of lectures and seminars corresponding to no less than 4 credits; completion of Special Research; submission and defense of the doctoral thesis; and passing the final examination of the course.

(2) Degree: Doctor of Philosophy in Engineering

## **3. Admission Quota**

A few

## **Global Science and Engineering Course on Electrical, Electronic and Infocommunications Engineering**

### **1. Program Summary**

The aim of this program is to educate students to become scientists or engineers of the new generation with basic knowledge and state-of-the-art research skills necessary for electronics, ubiquitous networking, nanotechnology, and electric power/energy. Through these educational and research activities, we seek to establish a safe and secure society, and an affluent, prosperous, sustainable, and human-friendly world.

### **2. Requirements for the Completion of Course and Obtaining the Degree**

(1) Requirements: Completion of lectures and seminars corresponding to no less than 4 credits; completion of Special Research; submission and defense of doctoral dissertation and passing the final examination of the course.

(2) Degree: Doctor of Philosophy in Engineering

### **3. Admission Quota**

A few

## **International Program of Maritime and Urban Engineering**

### **1. Program Summary**

The aim of this program is to educate students to become young scientists of the new generation with basic knowledge and state-of-the-art research skills necessary for; disaster prevention, protection of marine and urban environments; development of new energy and energy-saving technologies; and for the realization of a synthesized scheme of space, ocean and land.

### **2. Requirements for the Completion of the Course and Obtaining the Degree**

- (1) Requirements for completion of the program: Completion of lectures, seminars and internship corresponding to no less than 6 credits; satisfactory performance in Qualification Test PartI; defense of the doctoral dissertation; and passing of Qualification Test PartIIof the program.
- (2) Degree: Doctor of Philosophy in Engineering

### **3. Admission Quota**

A few

## ■ Procedures and General Descriptions

### 1. Application Requirements (The following items are common to the all programs.)

- (1) Educational background:  
Those who are expected to complete one of the following master's degree programs in September 30, 2024.
- Biotechnology Global Human Resource Development Program for Industry-University Co-Creation
  - Chemical Science Course
  - International Priority Graduate Program on Applied and Engineering Physics
  - International Program of Materials and Manufacturing Science
  - Global Science and Engineering Course on Electrical, Electronic and Infocommunications Engineering
  - International Program of Maritime and Urban Engineering
- (2) Health: Applicants must be physically and mentally healthy enough to pursue study at university.

### 2. Application Procedures

Note:

Every applicant must find, well in advance, a supervisor suitable for the research field in which the applicant is interested, and contact him/her by email to confirm whether the field is adequately fitting to his/her laboratory.

[Laboratories at the GSE] [https://www.eng.osaka-u.ac.jp/department/?post\\_type=en](https://www.eng.osaka-u.ac.jp/department/?post_type=en)

(1) Application Period

**April 22 to May 10, 2024 3:00 p.m. (Japan time)**

\*We will not be able to respond to inquiries on Saturdays, Sundays, and May 3-6 (Japanese national holidays). Please prepare your documents and make inquiries as early as possible.

The application materials must be submitted to the Admission Section by post or by hand, to be reached strictly no later than the last day of application period above.

(2) Address for Submissions

Admission Section, Student Affairs Division,  
Graduate School of Engineering, Osaka University  
U1M bldg., 1F, 2 - 1, Yamadaoka, Suita,  
Osaka 565-0871, JAPAN  
Tel: +81-6-6879-7228

【Office Hours】\*If you bring your own: Weekday 9:30 a.m. to 3:00 p.m. (excluding 11:30 a.m. ~ 12:30 p.m.)

(3) Application Materials

Materials	Details
(1) Application Form	<ul style="list-style-type: none"><li>• Fill out the prescribed “Application for Admission” form.</li><li>• A photograph (4cm×3cm) should be affixed to the first page. It should be taken within the last 3 months and should show the upper part of the body, without hat, in a frontal pose.</li></ul>



(2) Admission Ticket for an Examination and Photo Card	<ul style="list-style-type: none"> <li>• Applicant's name must be written on the prescribed form.</li> <li>• Two photographs (4cm×3cm) should be affixed. It should be taken within the last 3 months and should show the upper part of the body, without hat, in a frontal pose.</li> </ul>
(3) Copy of applicant's Residence Card (A4 size)	<ul style="list-style-type: none"> <li>• It must specify applicant's residence status, period of stay, and current address.</li> </ul>

Notes:

- (1) Admission Ticket for an Examination will be sent to the applicant.
- (2) Once application documents have been received, they will not be returned.

### 3. Selection and Announcement of the Results

Screening is to be executed in the following 2 categories A and B depending on the each program.

#### **Category A**

\*Chemical Science Course

- (1) Screening will be conducted by reviewing the application materials and documents in early June 2024. An interview or academic examination might be conducted if deemed necessary.
- (2) The examinee's number of successful applicants will be posted on the Graduate School Admissions page (the following URL) **by the end of June, 2024.**  
<[https://www.eng.osaka-u.ac.jp/en/entrance/f\\_admissions/](https://www.eng.osaka-u.ac.jp/en/entrance/f_admissions/)>

#### **Category B**

\*Biotechnology Global Human Resource Development Program for Industry-University Co-Creation  
 \*International Priority Graduate Program on Applied and Engineering Physics  
 \*International Program of Materials and Manufacturing Science  
 \*Global Science and Engineering Course on Electrical, Electronic and Infocommunications Engineering  
 \*International Program of Maritime and Urban Engineering

- (1) Matriculates will be selected from the applicants by reviewing the application materials and documents submitted by the applicants in early June 2024. In addition, oral examination including an interview concerning the master's thesis and/or academic examination will be conducted from late July to the end of August.  
 \*International Priority Graduate Program on Applied and Engineering Physics will hold examinations from late June. Please ask your prospective supervisor for the detailed schedule.
- (2) The examinee's number of successful applicants will be posted on the Graduate School Admissions page (the following URL) **by middle of September 2024.**  
<[https://www.eng.osaka-u.ac.jp/en/entrance/f\\_admissions/](https://www.eng.osaka-u.ac.jp/en/entrance/f_admissions/)>

## 4. Tuition

Tuition: 535,800 JPY/year

Notes:

- (1) The bank transfer fee is to be paid by the applicant.
- (2) The amount of tuition is subject to change. Amendments to fees will be applied from the date of amendment.
- (3) Tuition is waived for the MEXT Scholarship awardees.

## 5. Semester Starting Date

October 1, 2024

\*Classes may start at a later date.

## 6. Notes for Applicants

- (1) Incomplete documents will not be accepted.
- (2) The content of submitted documents cannot be changed after the application procedure has been completed.
- (3) Applications may be rejected or admission may be revoked even after matriculation, if any information or material in the application is found to be fraudulent.
- (4) For any questions concerning the application procedure, please contact the Admission Section freely.
- (5) On-campus parking spaces for cars and motorcycles are not available on the day of examination. Use of public transportation is encouraged instead.

## 7. Policy on Handling Personal Information

- (1) Names, addresses, and other personal information obtained through the application procedure will be used in the Entrance Examination Process, in the Announcement of the List of Successful Applicants, in the Admission Procedures, and in the distribution of program leaflets. For those admitted into Osaka University, personal information will also be used in academic-related matters (such as keeping academic and registration records), in student support matters (such as health care management, school fee remissions, scholarship applications, career support, etc.), and in school fee management.
- (2) Information obtained through the entrance examination will be used in statistical analysis of examination results, and in research on admission methods.

## 8. Inquiries and Further Information

Admission Section  
Student Affairs Division  
Graduate School of Engineering  
Osaka University  
2 - 1, Yamadaoka, Suita,  
Osaka 565-0871, JAPAN  
Telephone: +81-6-6879-7228  
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