

# Graduate School of Dentistry

## **Educational Objectives**

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Today, studies of dental medicine and dental healthcare cover a wider range of fields than ever, from oral to systemic health. With this understanding, and in line with the Educational Objectives of Osaka University, the Graduate School of Dentistry aims to nurture oral health scientists with the ability to examine systemic conditions of patients based on expertise in oral science and from a scientific viewpoint, and act as next-generation leaders in dental research and dental healthcare.

### **Cutting-edge, advanced specialized knowledge and outstanding academic expertise**

Acquire cutting-edge, advanced specialized knowledge in life sciences based on an understanding of oral science, and develop the ability to conduct original research in a wider range of fields not limited to oral science and deepen such research, to act as a researcher or a high-caliber dental healthcare professional.

### **Advanced broad-based knowledge and deep critical thinking**

Develop the ability to collect a broad range of information relating to oral science and other related disciplines and acquire advanced broad-based specialized knowledge and deep critical thinking.

### **Sophisticated international mindset**

Develop an international mindset and the ability to bring up global problems in the field of dental medicine and dental healthcare and play a leading role in solving such problems internationally.

### **Advanced design prowess**

Acquire cutting-edge, advanced specialized knowledge in oral science, advanced broad-based knowledge and deep critical thinking, and an international mindset, and develop the ability to promote interdisciplinary collaboration covering various areas in addition to dental medicine and dental healthcare.

### **Individual educational objectives**

Deepen understanding of the distinctiveness of oral science in life sciences and develop the ability to bring up problems to be solved based on knowledge in dental medicine or dental healthcare, and work in collaboration with specialists in other fields for problem-solving.

By guiding students to meet the abovementioned objectives, the Graduate School of Dentistry aims to help students develop the ability to gain an insight into various problems that cannot be solved through the conventional life-science-based approach, and to produce individuals who can play a leading role in various areas of society with design prowess backed by cutting-edge, advanced specialized knowledge, advanced broad-based knowledge and deep critical thinking, and an international mindset.

## **Completion Approval/Degree Awarding Policy (Diploma Policy)**

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Under the Diploma Policy of Osaka University, the Graduate School of Dentistry confers a Doctoral Degree in Philosophy in Dental Science on individuals specialized in the life science field relevant to oral science, subject to meeting the following objectives.

### **Cutting-edge, advanced specialized knowledge and outstanding academic expertise**

Acquire cutting-edge, advanced specialized knowledge and skills in dental medicine and dental healthcare, and develop the ability to apply such knowledge and skills for problem-solving.

Develop the ability to conduct original research in broader fields based on knowledge in oral science and deepen such research.

### **Advanced broad-based knowledge and deep critical thinking**

Acquire broad-based deep knowledge and develop the ability to think from a comprehensive viewpoint and conduct a multi-angle evaluation.

### **Sophisticated international mindset**

Develop the ability to bring up global problems in the field of dental medicine and dental healthcare and play a leading role in solving such problems internationally.

Acquire communication skills and global perspectives to play a leading role internationally.

### **Advanced design prowess**

Develop the ability to devise approaches to solutions to problems by combining various disciplines based on cutting-edge, advanced specialized knowledge, advanced broad-based knowledge and deep critical thinking, and an international mindset.

### **Individual educational objectives**

Develop the ability to bring up various problems in life sciences from a distinctive perspective of oral science and work in collaboration with specialists in other fields for problem-solving.

The Graduate School of Dentistry confers a Doctoral Degree in Philosophy in Dental Science on individuals who have: acquired design prowess backed by cutting-edge, advanced specialized knowledge, advanced broad-based knowledge and deep critical thinking, and an international mindset; and developed the ability to address various problems that cannot be solved through the conventional life-science-based approach, from the perspective of oral science.

## **Teaching and Learning Policy (Curriculum Policy)**

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In line with the Curriculum Policy of Osaka University, the Graduate School of Dentistry gives research guidance to students under an educational program that is designed to help them acquire specialized skills, comprehensive viewpoints, multifaceted thinking, and an international mindset, and support them in preparing for various future career paths.

### **Principles of Curriculum Design**

The curriculum of the Graduate School of Dentistry consists of: basic and special graduate lectures to acquire broad-based deep knowledge; a disease-specific problem-based-learning (PBL)-style dentistry education program to acquire advanced design prowess and problem-solving skills; Academic Major education subjects in core research fields to acquire outstanding academic expertise; and special subjects to acquire advanced broad-based knowledge and deep critical thinking, and an international mindset. The basic graduate lectures and special subjects and some of the special graduate lectures are taught in English to help students develop communication skills and global perspectives. Students are strongly recommended to study: Graduate Transdisciplinary subjects and International exchange subjects offered by Osaka University's other organizations, and subjects offered under the Graduate Minor Program and Graduate Program for Advanced Interdisciplinary Studies to acquire advanced broad-based knowledge, deep critical thinking and an international mindset; and international exchange subjects to develop international competency by learning about world-class research and interacting with foreign researchers through participation and presentation at international academic meetings.

### **Contents and Methods of Education**

Basic graduate lectures are designed to help students acquire the basic knowledge necessary for specialized study of oral science. These lectures are taught in English, and thus double as Global Literacy education subjects.

Special graduate lectures deal with various research themes, taught by renowned researchers, both Japanese and foreign.

The disease-specific PBL-style dentistry education program is designed to study various interdisciplinary themes relating to oral science.

Academic Major education subjects in respective core research fields consist of lectures, seminars, practical training sessions, and laboratory works.

Special subjects are offered in a seminar style and designed to enhance the ability to make presentations on themes relating to life sciences in English.

### **Academic Performance Evaluation Method**

The academic performance of students in lecture-based subjects is evaluated by assessing the level of achievement of learning goals specified in the syllabus based on reports or written examinations.

The academic performance of students in subjects offered under the disease-specific PBL-style dentistry education program is evaluated by assessing the level of achievement of learning goals specified in the syllabus based on reports, written examinations or research presentations.

The academic performance of students in seminar-, practical-training- and laboratory-work-based subjects is evaluated by assessing the level of achievement of learning goals specified in the syllabus based on reports, or

research presentations.

The doctoral thesis is prepared under research guidance and evaluated for sufficient academic value.

The curriculum of the Graduate School of Dentistry is designed to guide students to study a wide range of disciplines centering on the core research field and help them develop the ability to address various problems that cannot be solved through the conventional life-science-based approach, from the perspective of oral science, and to acquire design prowess backed by cutting-edge advanced specialized knowledge, advanced broad-based knowledge and deep critical thinking, and an international mindset.