

# Department of Health Sciences, Graduate School of Medicine

## **Educational Objectives**

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Under the Educational Objectives of the University of Osaka, the Department of Health Sciences of the Graduate School of Medicine has set its educational objectives as shown below. The Graduate School of Medicine aims to train healthcare professionals with: enough medical skills and knowledge to meet the needs of today's rapidly evolving healthcare environment; flexible thinking ability to keep up with the progress in science; a broad range of expertise; and the ability to take action whenever appropriate. To achieve this aim, the Graduate School has set its educational objectives in the following five areas.

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

Acquire cutting-edge and advanced specialized knowledge not only through theoretical studies, but also by repeating various experiments and fieldwork.

Master innovative research techniques with maximum effort.

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

Develop the ability to provide research guidance to younger medical professionals and researchers by further developing cultivated education and deep specialized knowledge.

### **A sophisticated international mindset**

Develop the ability to play a leadership role in international society utilizing advanced specialized knowledge, skills and foreign language proficiency.

### **Advanced design prowess**

Develop the ability to conduct research with high originality beyond mere application of past advanced research, by engaging in interdisciplinary research, while recognizing the importance of exploratory and seeds research.

Develop the ability to work together as a team in both clinical and research activities.

### **Individual educational objectives**

The Department of Health Sciences of the Graduate School of Medicine consists of the Area of Integrated Health and Nursing Science, and the Area of Medical Technology and Science which is further divided into three specialties: Medical Physics and Engineering, Biomedical Informatics, and Functional Diagnostic Science. They have set educational objectives, diploma policy and curriculum policy specific to these areas and specialties in consideration of their respective characteristics. These areas and specialists share one objective: to nurture good medical professionals and high-caliber scientists.

## **Degree Awarding Policy (Diploma Policy)**

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Under the Diploma Policy of the University of Osaka, the Department of Health Sciences of the Graduate School of Medicine has set its diploma policy as follows. The Department of Health Sciences plays a part in the progress in medical sciences. Research at the Department of Health Sciences encompasses a diverse range of topics that have social importance, e.g., addressing practical issues, such as clinical problems and collaboration with multidisciplinary healthcare teams; studying issues relating to social design such as ecological environment and medical system models; and exploring the latest scientific insights that underlie next-generation healthcare, medicine and welfare. The Department of Health Sciences confers a Master's Degree in Health Science or Science in Nursing, and a Doctoral Degree in Health Science or Science in Nursing on individuals who meet the following objectives.

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

Equipped with basic academic ability, advanced expertise, deep academic knowledge / education, and high ethics to carry out research in the field of medical science.

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

Equipped with acquired high ethical standards and humanity suitable for a medical profession, and being aware of being always a medical professional, and can actively contribute to the development of society.

### **A sophisticated international mindset**

Equipped with the ability to comprehend international academic journals and explain one's research to society.

### **Advanced design prowess**

Equipped with the ability to establish an original research theme that reflects the independence of the university as a seat of learning and that incorporates both theoretical and empirical viewpoints.

Equipped with the ability to propose new problem evaluation methods, find solutions, and work to establish core technologies.

### **Individual learning goals**

Equipped with the ability to promote research that can contribute to healthcare in the future with priority on borderless design and originality.

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

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In line with the Curriculum Policy of the University of Osaka, the Department of Health Sciences of the Graduate School of Medicine has set its curriculum policy as follows. The department's educational system is designed to help students develop the ability to think flexibly, acquire advanced knowledge in healthcare, and foster a strong sense of research ethics.

### **< Principles of Curriculum Design >**

Master's students are guided to acquire the skills necessary for conducting research in the specialized fields of health sciences through cutting-edge advanced lectures, seminars, experiments and practical training and write a master's thesis under the research guidance of a supervisor. Doctoral students are guided to conduct advanced research based on cutting-edge knowledge in the specialized fields, receive advice on the results of the research from a supervisor, and eventually write a doctoral dissertation.

By studying the specified subjects, students can acquire basic academic skills, advanced specialized knowledge, outstanding academic expertise, and broad-based knowledge and deep critical thinking, necessary for conducting research in the field of health sciences. By making presentations at seminars and reporting the progress of research, students can develop the ability to establish a research theme that incorporates both theoretical and empirical viewpoints and identify and solve clinical problems, and by being watched by others in this process, foster a strong sense of ethics. To develop sufficient English proficiency to comprehend scientific articles written in English and, in the doctoral degree program, to write papers in English, students are required to study subjects taught in English, make research presentations in English and develop a sophisticated international mindset.

### **< Contents and Methods of Education >**

Master's degrees are conferred on individuals who have been enrolled in the master's degree program for two or more years, earned the stipulated number of credits in Academic Major education subjects, advanced Liberal Arts education subjects and advanced Global Literacy education subjects, and received necessary research guidance, submitted a master's thesis written under the guidance of a supervisor, and passed the thesis review and final examination during enrollment. Credits earned in advanced Liberal Arts education subjects and advanced Global Literacy education subjects count towards the degree only if approved by the Graduate School.

Doctoral degrees are conferred on individuals who have been enrolled in the doctoral degree program for three or more years, earned the stipulated number of credits in Academic Major education subjects, and received necessary research guidance, submitted a doctoral dissertation written with the advice of the supervisor, and passed the dissertation review and final examination during enrollment. Taking advanced Liberal Arts and advanced Global Literacy education subjects is not mandatory for a doctoral degree.

As shown in the Educational Objectives, the contents and methods of study differ greatly with area and specialty. Some lecture-based subjects are offered as common subjects. More detailed information is given in the respective degree program of each department. Both master's and doctoral degree curricula are designed to educate students to develop the ability to think on their own, work in collaboration, and solve problems, and evaluate such ability in individual ways.

### **< Academic Performance Evaluation Method >**

The academic performance of students is evaluated by assessing the level of achievement of learning goals specified

in the syllabus based on written examinations and reports, using the method specific to each area/specialty shown in the respective Curriculum Policy of the master's and doctoral degree programs. Each degree program has its own evaluation system that reflects the respective characteristics. While successful completion of a master's thesis or doctoral dissertation is the ultimate goal, academic performance is evaluated also in terms of the process leading to the completion of a thesis or dissertation, the ability to work in collaboration, and attitude towards research.

Students enrolled in the School of Allied Health Sciences, Faculty of Medicine of the University of Osaka are strongly recommended to advance to the Graduate School of Medicine to increase the value of their studies greatly. Recent progress in medicine and healthcare is too rapid to be studied by lecture-based study alone. Medical professionals are responsible for keeping themselves updated with the latest medical information, which is constantly changing. The Department of Health Sciences boasts an outstanding curriculum designed to meet the needs of the times.