Graduate School of Pharmaceutical Sciences

Educational Objectives

The Graduate School of Pharmaceutical Sciences is committed to developing high-caliber personnel who can contribute to promoting health of humanity and lead society to a better future by discovering drugs, establishing appropriate methods of drug use, and ensuring the safety of the living environment. In line with the Educational Objectives of Osaka University, therefore, the Graduate School of Pharmaceutical Sciences aims to nurture leading researchers with: broad-based knowledge and profound expertise acquired through cutting-edge research in the field of pharmaceutical sciences; and with the ability to play an active role internationally in a diverse range of areas, including research, healthcare, education, industry and public administration, and make a significant contribution to drug discovery.

To develop personnel with these qualities, the Graduate School of Pharmaceutical Sciences strives to educate students to acquire cutting-edge, advanced specialized knowledge and outstanding academic expertise, advanced broad-based knowledge and deep critical thinking, a sophisticated international mindset and advanced design prowess, in cooperation with the internal organizations of the university, including the Institute of Scientific and Industrial Research, the Research Institute for Microbial Diseases, the Research Foundation for Microbial Diseases of Osaka University, and Osaka University Hospital, as well as with external organizations including the National Institutes of Biomedical Innovation, Health and Nutrition, the Pharmaceuticals and Medical Devices Agency and the National Institute of Health Sciences.

Cutting-edge, advanced specialized knowledge and outstanding academic expertise

Develop the competency and ability to play a leading role in solving problems, by integrating advanced knowledge and skills acquired through cutting-edge pharmaceutical research in life sciences, pharmaceutical sciences, social and environmental pharmacy, medical and clinical pharmacy, advanced healthcare, regulatory science or other related fields.

Advanced broad-based knowledge and deep critical thinking

Acquire a broad range of deeper knowledge in fields not limited to pharmaceutical sciences and develop the ability to think from multifaceted and comprehensive viewpoints.

Develop a rich sense of humanity and creativity, outstanding leadership skills, a firm commitment to playing a leading role in promoting the health of humanity, and an advanced sense of ethics necessary for a cutting-edge healthcare professional.

Sophisticated international mindset

Develop high international competitiveness to work as a world-leading researcher in drug discovery, advanced healthcare, public hygiene and other related fields with a global perspective and a comprehensive understanding of different cultures and societies.

Advanced design prowess

Develop the competency and ability to delve deeply into regional and global pharmaceutical problems affecting human health, healthcare and welfare, play a leading role in finding solutions to such problems in cooperation with various stakeholders and raise the level of the solutions.

Completion Approval/Degree Awarding Policy (Diploma Policy)

Under the Diploma Policy of Osaka University, the Department of Medical Pharmacy and the Department of Advanced Pharmaco-science of the Graduate School of Pharmaceutical Sciences aim to nurture leading researchers with: broad-based knowledge and profound expertise acquired through cutting-edge research in the field of pharmaceutical sciences as stated in the educational objectives; and with the ability to play an active role internationally in a diverse range of areas, including research, healthcare, education, industry and public administration, and make a significant contribution to drug discovery. To achieve this aim, the Graduate School of Pharmaceutical Sciences confers a Master's Degree in Pharmaceutical Sciences and a Doctoral Degree in Philosophy in Pharmacy or Philosophy in Pharmaceutical Sciences on individuals who have been enrolled, respectively, in the master's degree and doctoral degree programs for the period specified in the Graduate School Regulations, acquired cutting-edge, advanced specialized knowledge and outstanding academic expertise, advanced broad-based knowledge and deep critical thinking, a sophisticated international mindset and advanced design prowess as stated in the following learning goals, earned the stipulated number of credits, received necessary research guidance, and passed the review of the master's thesis or doctoral dissertation and final examination.

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Teaching and Learning Policy (Curriculum Policy)

In line with the Curriculum Policy of Osaka University, the Department of Advanced Pharmaco-science of the Graduate School of Pharmaceutical Sciences designs its master's degree curriculum by systematically combining lecture-based, seminar-based, practical-training-based subjects with advanced Liberal Arts education subjects and advanced Global Literacy education subjects, and its doctoral-degree curriculum by systematically combining elective required subjects, required subjects and elective subjects, with a view to guiding students to acquire: cutting-edge, advanced specialized knowledge and outstanding academic expertise; advanced broad-based knowledge and deep critical thinking; a sophisticated international mindset; and advanced design prowess, as stated in the Diploma Policy. The curriculum of the doctoral degree program of the Department of Medical Pharmacy is designed by combining elective required subjects and required subjects systematically.

< Principles of Curriculum Design >

At the Graduate School of Pharmaceutical Sciences, each curriculum is designed by combining subjects in a manner that systematically guides students to achieve each of the learning goals specified in the Diploma Policy, namely, to acquire: cutting-edge, advanced specialized knowledge and outstanding academic expertise; advanced broad-based knowledge and deep critical thinking; a sophisticated international mindset; and advanced design prowess.

To acquire "cutting-edge, advanced specialized knowledge and outstanding academic expertise," master's students in the Department of Advanced Pharmaco-science study lecture-based, seminar-based and practical-training-based subjects, while doctoral students in the Department of Advanced Pharmaco-science and the Department of Medical Pharmacy study elective required subjects and required subjects.

To acquire "advanced broad-based knowledge and deep critical thinking," master's students in the Department of Advanced Pharmaco-science study lecture-based, seminar-based and practical-training-based subjects as well as advanced Liberal Arts education subjects, while doctoral students in the Department of Advanced Pharmaco-science and the Department of Medical Pharmacy study elective required subjects, required subjects and elective subjects.

To develop a "sophisticated international mindset," master's students in the Department of Advanced Pharmaco-science study lecture-based, seminar-based and practical-training-based subjects as well as advanced Global Literacy education subjects, while doctoral students in the Department of Advanced Pharmaco-science and the Department of Medical Pharmacy study elective required subjects, required subjects and elective subjects.

Both Departments offer a special subject titled "Global Graduate Seminar in Pharmacy" that focuses on the development of a sophisticated international mindset.

To develop "advanced design prowess," master's students in the Department of Advanced Pharmaco-science study seminar-based and practical-training-based subjects as well as advanced Liberal Arts education subjects, while doctoral students in the Department of Advanced Pharmaco-science and the Department of Medical Pharmacy study elective required subjects, required subjects and elective subjects.

< Contents and Methods of Education >

At the Graduate School of Pharmaceutical Sciences, the problem-based learning (PBL), active learning and self-directed learning methods are used in lectures, seminars, practical training sessions, laboratory works and workshops to guide students to achieve the learning goals and thus acquire: cutting-edge, advanced specialized knowledge and outstanding academic expertise; advanced broad-based knowledge and deep critical thinking; a sophisticated international mindset; and advanced design prowess. Some subjects are taught by combining these

methods as appropriate.

< Academic Performance Evaluation Method >

The Graduate School of Pharmaceutical Sciences has established methods and criteria to strictly and fairly assess the level of achievement of learning goals for all the subjects. These methods and criteria are shown in the syllabuses of the subjects and made known to students. Some seminar-based and practical-training-based subjects are designed to develop graduate-level competencies and skills, in addition to acquiring advanced knowledge, including thinking, judgment and expression skills, and cooperative learning attitude. Academic performance in these subjects is fairly evaluated by assessing the level of achievement of learning goals and the competencies and skills specified in the educational goals of the subjects.