

GRADUATE SCHOOLS

Playing a vital role since 1965 in the university's educational mission of contributing to cultural development, the Graduate Schools are dedicated to in-depth research and education in the arts and sciences, from theory to a broad spectrum of real-world applications. At present, the university has ten Graduate Schools offering 33 programs covering a wide range of academic fields, as listed on the right. The programs comprise two-year master's programs, five-year doctoral programs (two years for MA and three years for PhD), four-year doctoral programs in the medical sciences, and three-year professional master's degree programs.

The master's programs are designed to give students both a deep knowledge of their chosen field and the ability to approach it from various perspectives, equipping them either for higher level research or careers demanding specialized knowledge. The aim of the doctoral programs is to give students the high-level theoretical knowledge and research skills necessary for advanced research in their chosen fields as independent researchers. The professional master's degree programs are designed to instill in students a deep sense of scholarship and equip them with the capabilities necessary for them to pursue careers requiring highly specialized knowledge and skills.

Responding to increasing specialization, diversification and internationalization in all academic fields, the graduate schools admit overseas students from Japan and abroad, while proactively striving for the development of the graduate schools by increasing the number of teaching staff and enhancing welfare services. Graduate students can study at other graduate schools or research institutes both at home and abroad if relevant study is recognized as being beneficial for their education and research.

Through the use of entrance examinations, a system whereby outstanding students can skip their fourth year of undergraduate study to enroll in graduate courses was adopted by the Graduate Schools of Science and Engineering in 1991 (except for the schools of Architecture and Civil Engineering, and Recycling and Eco-Technology), and Sports and Health Science in 1992. All graduate schools, except the Graduate School of Medical Sciences, organize entrance examinations for mature students with relevant work experience to answer social requests and expectations, thereby attracting many applicants.

Contents

Humanities

24

- History (MA, PhD)
- Japanese Language and Literature (MA, PhD)
- English Language and Literature (MA, PhD)
- German Language and Literature (MA, PhD)
- French Language and Literature (MA, PhD)
- Socio-Cultural Studies (MA)
- Education and Clinical Psychology (MA, PhD)

Law

26

- Public Law (MA, PhD)
- Civil and Criminal Law (MA, PhD)

Economics

27

- Economics (MA, PhD)

Commerce

27

- Commerce (MA, PhD)

Science

28

- Applied Mathematics (MS, PhD)
- Applied Physics (MS, PhD)
- Chemistry (MS, PhD)
- Earth System Science (MS, PhD)

Engineering

29

- Mechanical Engineering (MS)
- Electrical Engineering (MS)
- Electronics and Computer Science (MS)
- Chemical Engineering (MS)
- Architecture and Civil Engineering (MS)
- Energy and Environment Systems (PhD)
- Information and Control Systems (PhD)
- Recycling and Eco-Technology (MS)

Medical Sciences

31

- Human Biology (PhD)
- Biological Control Mechanisms (PhD)
- Pathomorphology (PhD)
- Pathological Biodynamics (PhD)
- Social Medicine and Environmental Health (PhD)
- Advanced Medicine (PhD)
- Nursing (MS)

Pharmaceutical Sciences

33

- Pharmaceutical Health Science (MS)
- Pharmaceutical Science (PhD)

Sports and Health Science

34

- Sports and Health Science (MS, PhD)

Institute for Legal Practice

34

- Legal Practice (JD)

Graduate School of Humanities

History (MA, PhD)

The History graduate program offers four majors covering a wide range of research themes: Japanese History, Asian History, Western History and Archaeology. For the Japanese History major, research themes range from ancient and medieval history to the closing years of the Tokugawa Shogunate and the early years of the Meiji Era. The themes of the Asian History major cover Chinese history from the Qin and Han periods through the Ming and Qing. Studies in the Western History major include the history of Britain and Germany in the modern age. The Archaeology major mainly focuses on archaeological research of the primeval, ancient and medieval periods.



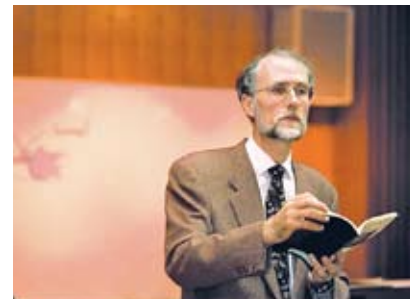
Japanese Language and Literature (MA, PhD)

Students in the Japanese Language and Literature graduate program major in either Japanese Language or Japanese Literature. Students can choose from the multiple specialties offered by each major in order to focus their learning while taking other courses as well. In the Japanese Language major, the courses offered include studies of classical, modern and contemporary Japanese. In the Japanese Literature major, courses offered include classical literature, modern literature and comparative literature. One of the features of the program is the way in which education and research is informed by the most advanced research in comparative literature and linguistics.



English Language and Literature (MA, PhD)

Students in the English Language and Literature graduate program major in English Language, English Literature or English Language Education. Each major offers multiple courses: English Language courses offered include syntax, phonology and historical linguistics, while English Literature courses offered include courses in British and American culture, fiction, drama and poetry. Students in the English Language Education major may also take courses in design of English learning environments and English language education methodology, among others. Students are assigned to an academic supervisor who helps them deepen their knowledge in their specialized field and guides them through research culminating in their MA or PhD theses.



German Language and Literature (MA, PhD)

The majors offered in the German Language and Literature program are German Language and German Literature. Courses offered in the German Language major include studies of historical linguistics centering on Middle High German, semiotics, sociohistorical linguistics (research into urban linguistics), German syntax and teaching German as a foreign language. The German Literature major offers courses such as History of German Classicism and its Influence, Jacob Grimm and Modern Romantic German Fiction, Franz Kafka and Max Frisch. Students also have the rare opportunity to take a course in Yiddish, the language of the Jews of Eastern Europe, and in German-Jewish studies.



French Language and Literature (MA, PhD)

Students in the French Language and Literature program major in either French Language or French Literature. The courses offered in the French Language major focus mainly on modern French linguistics, centering on syntax and grammatical theory. The French Literature major offers a balanced program ranging from the 17th to the 20th centuries, including courses on contemporary French thought.



Socio-Cultural Studies (MA)

The Socio-Cultural Studies program comprises two branches: Sociology and Culture Theories (Cultural Anthropology). The Sociology courses stress lectures and practice in the theory of social systems, while the Culture Theories (Cultural Anthropology) courses focus on lectures and practice in empirical and theoretical analysis of cultural phenomena. Several courses on the fundamentals of socio-cultural studies and related methodology courses are required courses common to both branches. The Sociology branch aims at the cultivation of specialist techniques to analyze social structures and trends, including survey, statistical and mathematical approaches. The Culture Theories (Cultural Anthropology) branch aims to produce specialists with the knowledge and skills required for fieldwork, including practical language ability, and intellectuals who have professional knowledge and a solid grounding in Western philosophy.



Education and Clinical Psychology (MA, PhD)

This evening program includes two fields of study: Education and Clinical Psychology. The Education course is designed for students who wish to deepen their knowledge of education and school teachers who wish to upgrade their professional skills. The course promotes practical and comprehensive analysis of the factors involved in education at schools and in the social environment. The aim of the Clinical Psychology course is to produce highly qualified professionals in the field of clinical psychology, focusing mainly on the theory and techniques of clinical psychology. The program also offers intensive continuing education opportunities for working people. Emphasis is placed on meeting the varied needs of students, and the program offers as many as 50 courses. Upon completion of the MA program, students are qualified to take examinations for the Advanced Class Teacher's Certificate and the Certified Clinical Psychologist qualification authorized by the Clinical Psychologist Certification Board of Japan.



Graduate School of Law

Public Law (MA, PhD)

The subjects offered in the Public Law program are Constitutional Law, Administrative Law, Tax Law, International Law, Economic Law, Legal Sociology, Legal History, Political Science and History of Political Thought. The staff works with the staff of the Civil and Criminal Law program and collaborates with specialists from other major universities in Japan and overseas in research. This approach has earned praise for research into constitutional law through comparative legal study, and into international law with respect to fundamental ethics.

The admission system offers different admission standards and examinations according to the students' purposes after completing the course (e.g. students aspiring to be research staff members and students aspiring to be legal specialists or public servants), or according to social status such as working members of society and international students. Students are required to write a master's thesis to complete the master's degree course. When giving advice on researching and writing a thesis, we reflect on the student's purpose for choosing this program as much as possible. We also strive to give lectures in each course in line with the students' purposes for choosing this program.



Civil and Criminal Law (MA, PhD)

The subjects offered in the Civil and Criminal Law program are Civil Law, Commercial Law, Criminal Law and Procedure, Labor Law, Social Security Law, International Private Law, East Asian Corporate Law and Intellectual Property Law. Collaborative research projects are advanced with the staff of the Public Law program, and with researchers from other universities in Japan and overseas. Research results in the environmental field in particular have earned high praise, and have led the Ministry of the Environment to commission a study of environmental administration policies. The East Asian Corporate Law program begun in 2008 is attracting considerable attention as a unique course taught by a non-Japanese professor.

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Graduate School of Economics

Economics (MA, PhD)

The subjects offered in the Graduate School of Economics MA program include Economic Theory, Micro-Economics, Advanced Economic Theory, Applied Macro-Economics, Economic Dynamics, History of Economics, Monetary Theory, Economic History I (Asia), Economic History III (Japan), History of Social Theories, Theory of Economic Policy, Industrial Organization, International Trade Theory, Modern Economic Analysis of the U.S., China and Japan, Theory of Economic Development, Socioeconomics, Economics of Negotiable Securities, Public Finance, Taxation Theory, Public Economics, Social Choice Theory, Mathematical Economics, Quantitative Economics, Applied Econometrics, Economic Time Series Analysis, Statistics, Statistical Economic Theory, Social Engineering, Income Redistribution Theory, Urban Informatics, Analysis of Urban Models, Analysis of Urban Systems, Operations Research, Game Theory, Labor Economics, and Industrial Psychology. The subjects offered in the PhD program include Economic Theory, Social Engineering, Analysis of Urban Models, Industrial Psychology, History of Economics, Game Theory and Operations Research.



Graduate Schools of Commerce

Commerce (MA, PhD)

Subjects in the Commerce program include Distribution Systems, Marketing, Banking, Insurance, Transport Economics, International Transport, International Economics, Trade, Trade Policy, Commercial Trade, International Finance, Currency Exchange, Comparative Financial Systems Asian Economics, Development Economics Management, Management Organization, Finance Management, Human Resource Management, Modern Corporations, International Management, Operations Research, Management Strategy, Book-keeping, Financial Auditing, Financial Reports, International Accounting and Corporate Taxation. With its array of advanced specialized courses, the aim of the program is to produce topflight researchers and educators, tax accountants, certified public accountants and other professionals who can play active roles in the business world.



Graduate School of Science

Applied Mathematics (MS, PhD)

To meet the needs of the rapidly developing information-oriented society, the Applied Mathematics program provides a broad education in pure and applied mathematics. The subjects offered are Fundamental Mathematics, Geometry, Analysis, Applied Analysis, Applied Mathematical Science, Statistics and Mathematics of Information. Courses in algebra, topology, differential geometry, functional analysis, complex analysis, differential equations, probability theory, statistics and mathematics of society are offered. In recent years, the staff's cutting-edge research on homotopy theory, Riemannian geometry, unbounded operator algebra, non-linear differential equations, stochastic approximations, theory of multi-variable functions, computer analysis of natural language and network programming has attracted widespread attention.



Applied Physics (MS, PhD)

The Applied Physics program is dedicated to producing scientists with the knowledge, skill and vision to apply physics in a wide range of fields. Core subjects offered are Basic Physics, Physical Properties, Nanophysics and Physical Information Acquisition. In the Basic Physics course, students study nuclei and other structures of multi-quantum structures; in the Physical Properties course they study the properties of functional molecular coagulates, magnetic materials, superconductors and alloys; and in the Nanophysics course the emphasis is on nanoscale structures, with study on the properties of materials used in semiconductors and ultra-small electronic components. The course on Physical Information Acquisition probes methods of measuring physical properties.



Chemistry (MS, PhD)

In this era in which increasing importance is being placed on the discovery of advanced functional materials such as high-temperature superconductive materials and safe, environmentally friendly chemicals, the Chemistry program enables students to study a broad range of chemistry from theory to applications. The majors offered are Physical Chemistry of Structures, Functional Chemistry, Organic Biochemistry and Functional Biochemistry. In the physical chemistry group of the Physical Chemistry of Structures, for example, state-of-the-art scientific research on the relationship between ordered structures and the physicality of fluid with structures, such as surface-active agents, liquid crystals and colloidal dispersion, is conducted also with an eye toward new applications.



Earth System Science (MS, PhD)

In the Earth System Science program students explore various phenomena occurring on earth through a comprehensive and historical study of the mechanisms of the atmosphere, hydrosphere, lithosphere and biosphere from a wide range of perspectives. The majors offered are Physics of the Global Environment, Geophysical Fluid Dynamics, Hydrospheric Material Chemistry, Geodynamics, Structural Adaptation Biology and Functional Adaptation Biology. This interdisciplinary program, which connects physics, chemistry, biology and earth science, is the only postgraduate course of its kind in western Japan.



Graduate School of Engineering

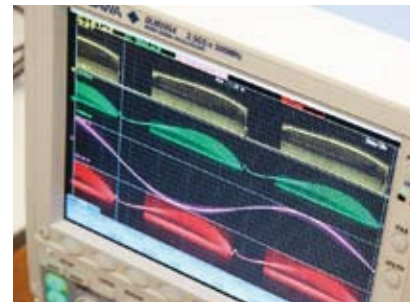
Mechanical Engineering (MS)

The Mechanical Engineering program includes five majors: Strength of Materials, Fluid Engineering, Thermal Engineering, Manufacturing Science and System Dynamics and Control. In each major, two faculty members are in charge of education and research. Students gain far-reaching basic knowledge in the field of mechanical engineering, which, coupled with research themes closely linking to advanced science and technology, provide them with comprehensive problem-solving ability and a broad perspective.



Electrical Engineering (MS)

The Electrical Engineering program is comprised of the four majors of Basic Electrical Engineering, Power Electronics, Electrical Power Engineering and Applied Electrical Engineering. These courses embrace such fields as the environment, information and communications, superconductivity, control systems, energy conversion, high voltage insulation, and laser applications. Progress is rapid in all of these fields, and this program promotes an interdisciplinary approach designed to produce professionals able to answer the needs of society.



Electronics and Computer Science (MS)

Composed of seven majors—Integrated Circuits, Communication Systems, Optoelectronics, Computing Systems, Information Architecture, Knowledge Engineering, and Media Engineering—the program offers courses and research in semiconductors, radio technology, optical communications, computer engineering, robotics, natural speech processing, and audio and video data processing. The program is designed to produce professionals with high-level knowledge and research ability to drive technological innovation in the key fields of electronics, communications and information.



Chemical Engineering (MS)

The Chemical Engineering program offers five majors: Fundamentals of Chemical Engineering, Diffusional Unit Operations, Mechanical Unit Operations, Reaction Engineering and Industrial Chemistry, under a faculty staff of nine. The program focuses on finding technical solutions to key problems and includes cutting-edge themes such as extraction by supercritical fluids, separation membranes, technologies designed to overcome environmental problems, new functional materials, and advanced separation technologies, training graduates with a broad perspective and high-level knowledge.



Architecture and Civil Engineering (MS)

Construction technology, which creates the spaces and facilities supporting a wide range of social activity including living, working and playing, faces a severe economic and financial climate, but must continue to ensure safety and environmentally aware products, making further advancement in the field essential. This program is intended to train researchers, engineers and designers capable of addressing and resolving these issues, offering seven majors: Structural Design, Aseismic Engineering, Construction Materials, Liquid Systems, Regional and Housing Design, Construction Environmental Planning, and Roadway and Foundation Environmental Planning. The program also satisfies the requirement for practical experience defined in the national qualification examination for Grade 1 architect.



Energy and Environment Systems (PhD)

The Energy and Environment Systems program is composed of six majors: Thermal Energy Engineering, Electrical Energy Engineering, Urban Environmental Engineering, Environmental Material Engineering, Environmental Process Engineering and Recycling System Engineering. Interdisciplinary studies are promoted through research on energy generation, conversion and transfer for solving energy problems, environment-friendly chemical systems approaches to overcoming environmental problems, technologies for waste treatment and recycling, and material development for the prevention of environmental degradation.



Information and Control Systems (PhD)

This program is composed of four majors: Computer Science, Information Transmission Engineering, Power Electronics and Mechatronics, and Solid State Electronics. Research fields include natural language processing, intelligent information processing, information transmission including optical communications, robot control, power conversion using semiconductor devices, and the functional devices to support such systems. The program's intensively interdisciplinary approach ensures that these diverse researches are coordinated for maximum educational and research efficiency.



Recycling and Eco-Technology (MS)

In a world with limited natural resources and energy sources, this program was established in the 2002 academic year aiming to produce engineers necessary to realize a sustainable society, where people have an organic relationship with the natural environment. Established in the Graduate School of Engineering, the program welcomes not only new graduates but also members of the general population and students from overseas, regardless of their majors, aiming to integrate elements from both the engineering and humanities fields. The program consists of six majors: Sustainability of Resources, Control of Environmental Chemicals, Ecological Control, Regional Environment, Environmental Management and Cultural Environment in East Asia.

Graduate School of Medical Sciences

Human Biology (PhD)

Comprised of 14 teaching staff members, this program focuses on the basic structure and functions of the human body. The majors offered are Biological Structure, Molecular Cell Biology and Cellular Molecular Control. Among the noteworthy studies currently underway are studies on cell structure and cell physiology and biochemical studies on cellular function.



Biological Control Mechanisms (PhD)

This program is taught by eight teaching staff members and offers majors in Microbiology and Immunology, Regenerative and Transplantation Medicine, Respiratory Pathophysiology, and Regenerative and Reconstructive Surgery. Studies focus on microorganisms, eumycetes and parasites pathogenic to the human body and immune system.



Pathomorphology (PhD)

With 29 teaching staff members, this program conducts research focused mainly on the microscopic analysis of human body tissues and pathological changes induced in them by diseases and on the mechanism of the development of various diseases and their therapies. Majors offered include Morphologic Pathology, Pathology, Geriatric Pathology, Tumor Pathology, Morphofunctional Pathology, Pathology of the Central Nervous System, Pathophysiology of the Visual System, Urology and related Sciences, Pathophysiology of the Gastrointestinal Tract, Pathomorphology of Pancreato-Hepato-Biliary Diseases, Neurology, and Immunology and Metabolic Disease.



Pathological Biodynamics (PhD)

Research in this program, which is taught by 25 teaching staff members, centers on the normal functions of the human body and the morbid changes induced by diseases. The majors offered are Molecular Pharmacology, Neuro-Otology, Joint Physiology and Mechanics, Cardiovascular Hemodynamics, Radiological Science, Anesthesiology, Emergency and Critical Care Medicine, and Oral Physiology.

Social Medicine and Environmental Health (PhD)

This program, which is taught by 12 teaching staff members, offers majors in Epidemiology and Health Education, Health Medicine, Social Welfare Systems, Criminal Medicine and Psychoanalysis. Major research themes include studies on diseases induced by the relationship between human beings and their social environment, prevention of occupational diseases and health control in the workplace, and social and environmental factors in the development of human diseases.

Advanced Medicine (PhD)

Composed of 42 teaching staff members, this program has 14 majors: Immunobiochemistry, Cardiovascular Physiological Chemistry, Biochemistry and Pathophysiology of Reproductive Organs, Clinical Test and Laboratory Medicine, Cardiovascular Physiology and Chemistry, Immunobiochemistry of Cutaneous Malignant Tumors, Pathophysiology of Infectious Diseases, Pathophysiology of Endocrine and Metabolic Diseases, Gastrointestinal Pathophysiology, Organ Regeneration and Surgery, Gastroenterology, Developmental Pediatrics, Clinical Oncology, and Clinical Research. Ongoing research includes studies on the chemical mediators that affect the functions of the human body, their kinetic metabolism and the pathological changes they induce.



Nursing (MS)

Newly established from the 2011 school year, this program provides students with the skills and knowledge necessary to resolve various health-related issues cooperatively with specialists in other fields, with an understanding of the importance of health in assuring the quality of life for patients. Research covers four main fields: mother-child health support; adult lifestyle disease support; regional and mental health support; and nursing staff training and management.

Graduate School of Pharmaceutical Sciences

Pharmaceutical Health Science (MS)

Pharmaceutical Health Science is divided into two programs: Pharmaceutical Health Medicinal Science and General Pharmaceutical Sciences. The aim of the Pharmaceutical Health Science program is to produce human resources such as health science-related researchers/technical experts, medicinal science-related researchers/technical experts, medical representatives, and health food and perfumery and cosmetics safety officers who can play active parts in the interdisciplinary health science field. The General Pharmaceutical Sciences program is mainly intended for on-the-spot pharmacists, providing them with systematic and methodic support toward acquiring state-of-the-art medical and pharmaceutical sciences through lectures and seminars, thereby fostering their ability to develop and assess information through research and become leading pharmacists who can make community-based medical contributions.



Pharmaceutical Science (PhD)

The Pharmaceutical Science course is divided into eight majors: Medical Material Science, Analysis of Bio-function, Pharmacology, Medicinal Analysis, Clinical Pharmacology, Clinical Pharmaceutics, Clinical Biochemistry and Clinical Medicinal Chemistry. This course aims to produce researchers who will play important roles in developing future pharmaceutical sciences through basic and applied research in state-of-the-art sciences relating to drug development and life science, or leaders with advanced research capabilities.



Graduate School of Sports and Health Science

Sports and Health Science (MS, PhD)

The Physical Education program aims at producing first-rate physical education specialists and leaders who can develop their professional abilities to meet the needs of society. To accomplish this, six majors are offered: Physical Education, Physical Fitness, Sports Medicine, Physical Education Teaching Methods, Coaching Methods, and Exercise and Health. Research and education extends beyond traditional school and university sports to include medical and municipal institutions, private organizations and commercial sports facilities.



Institute for Legal Practice

Legal Practice (JD)

We have a structured curriculum beginning with the fundamental subjects and progressing on to practical legal subjects, including all the things needed to acquire the necessary abilities to work as a practicing judge, public prosecutor or lawyer. These two types of subjects are well linked to each other in the curriculum.

All of the basic theory subjects such as Constitutional Law, Civil Law and Criminal Law are directed towards first-year law students in the three-year course for students without undergraduate law degrees. From the second year, students in the standard three-year course and those studying in the abbreviated two-year course for students with undergraduate law degrees attend courses together, but in the second year theory education linked with legal practice is conducted with the central focus being Code of Legal Procedure.

In the third year, students acquire practical legal management skills as they study practical legal subjects and development subjects such as Seminar on Civil Affairs Practice and Medical Welfare and Human Rights. These classes are taught by former judges and public prosecutors, lawyers, and college researchers with many years of university education experience. In addition to receiving their Law Doctorate, those who complete this degree course also gain the qualification to take the new National Bar Examination.

