Department	Department of Pure and Applied Physics
Course	Master, Doctor
Degree	Master(Engineering/Science), Doctor(Engineering/Science)

1. Diploma Policy	Research on important issues of modern physics and their technological applications is conducted in the Department of Pure and Applied Physics. Students in the graduate program are supposed to acquire expertise, research method, abilities to challenge unexplored subjects (abilities to identify and solve problems), and abilities of presentation and communication in research fields of modern physics and its application. Students who completed the program are granted with the following degrees. master (science): acquirement of expertise and research ability in modern physics master (engneering):acquirement of expertise and research ability in application of modern physics doctor (science): acquirement of research ability to solve advanced issues in modern physics doctor (engineering): acquirement of research ability to develop new application of modern physics
2. Curriculum Policy	Students are supposed to acquire practical research abilities (abilities to identify and solve challenging research issues, abilities to present and communicate research outputs) through research activities in the fields of pure and applied physics such as mathematical physics, elementary particle/nuclear/radiation physics, astrophysics, condensed matter physics, biophysics, information/engineering physics. In the graduate course of the Department of Pure and Applied Physics, students are supposed to acquire the following abilities based on the academic knowledge equivalent to that of graduates of the Department of Physics or the Department of Applied Physics of undergraduate program. master (science): acquirement of expertise and ability to solve issues in modern physics master(engineering): acquirement of expertise and research ability in application of modern physics doctor(science): acquirement of practical research ability to solve advanced issues in modern physics doctor(engineering): acquirement of practical research ability to develop new application of modern physics

Learning Outcome 1	Acquirement of specialized knowledge in mathematical physics, elementary particle/nuclear/radiation physics, astrophysics, condensed matter physics, biophysics, information/engineering physics. master (science): acquirement of specialized knowledge in modern physics master(engineering): acquirement of specialized knowledge in application of modern physics doctor(science): acquirement of specialized knowledge in modern physics doctor(engineering): acquirement of specialized knowledge in application of modern physics
Learning Outcome 2	Acquirement of specialized technology in mathematical physics, elementary particle/nuclear/radiation physics, astrophysics, condensed matter physics, biophysics, information/engineering physics. master (science): acquirement of specialized technology in modern physics master(engineering): acquirement of specialized technology in application of modern physics doctor(science): acquirement of specialized technology in modern physics doctor(engineering): acquirement of specialized technology in application of modern physics
Learning Outcome 3	Acquirement of research method in mathematical physics, elementary particle/nuclear/radiation physics, astrophysics, condensed matter physics, biophysics, information/engineering physics. master (science): acquirement of research method in modern physics master(engineering): acquirement of research method in application of modern physics doctor(science): acquirement of research method in modern physics doctor(engineering): acquirement of research method in application of modern physics
Learning Outcome 4	Acquirement of research spirit to challenge unexplored issues in modern physcis and its application master (science): acquirement of research spirit to challenge unexplored issues in modern physcis master(engineering): acquirement of research spirit to challenge unexplored issues in application of modern physcis doctor(science): acquirement of research spirit to challenge unexplored issues in modern physcis doctor(engineering):acquirement of research spirit to challenge unexplored issues in application of modern physcis
Learning Outcome 5	Acquirement of research planning ability (ability to identify important issues and plan research strategy) in modern physics and its technological application doctor(science): acquirement of research planning ability in modern physics doctor(engineering): acquirement of research planning ability in application of modern physics
Learning Outcome 6	Acquirement of research presentation ability (ability to present and communicate research outputs) in modern physics and its technological application doctor(science): acquirement of research presentation ability in modern physics doctor(engineering): acquirement of research presentation ability in application of modern physics

Department	Department of Chemistry and Biochemistry
Course	Master, Doctor
Degree	Master（Science）, Doctor（Science）

1. Diploma Policy	In order to elucidate the reactivity and physical properties of materials at the atomic and molecular levels, the department aims to develop human resources with flexible thinking and creativity backed by basic chemistry through the development of quantum chemical calculation methods and various spectroscopic methods, the development of new synthetic methods for organic compounds and metal complexes, analysis of reaction mechanisms, synthesis of compounds with useful functions and reactivity, and life science research based on chemistry.To realize this goal, experts in physical chemistry, organic chemistry, inorganic/analytical chemistry, and biochemistry will provide advanced professional education and research guidance.In the master course, students conduct research under the guidance of their respective instructors and summarize their research results in a master's thesis. The master's thesis will be reviewed, and if the student is recognized as having the knowledge and ability to explore the essence of chemistry and bio-chemistry from the perspective of natural science, and as possessing a sense of ethics, the student will be awarded the degree of Master of Science.In the doctoral course, students conduct original research under research guidance, publish several refereed papers in international journals and conferences, and summarize their research results in a doctoral thesis. In the examination of the doctoral thesis, if it is recognized that the student has advanced knowledge of natural science and the ability to elucidate new psychology, the degree of Doctor of Science will be awarded.
2. Curriculum Policy	In addition to research ethics courses common to all research areas, each research area (physical chemistry, organic chemistry, inorganic/analytical chemistry, and biochemistry) offers research guidance by each faculty member as well as advanced lecture and seminar courses.In addition, intensive lectures are given by professors from other universities. In the master's program, students are required to take seminar courses taught by their advisors.In addition, there are core and recommended courses that should be taken, and students are required to earn the prescribed credits. In the doctoral program, in addition to the required research ethics courses and Doctoral Student Technical Writing, students are required to earn credits for the prescribed lecture courses.

Learning Outcome 1	Acquire specialized knowledge and advanced experimental operations in each field, and be able to conduct research in each field independently.
Learning Outcome 2	Develop a proper sense of ethics as a researcher in the natural sciences.
Learning Outcome 3	Acquire the ability to appropriately summarize research results and present them at domestic and international conferences.
Learning Outcome 4	Acquire the ability to discover and solve problems on their own through research, and be able to practice ″chemistry by think and experiment″.
Learning Outcome 5	
Learning Outcome 6	

Department	Department of Applied Chemistry
Course	Master, Doctor
Degree	Master（Engineering）, Doctor（Engineering）

1. Diploma Policy	Students acquire expertise in advanced chemistry, knowledge in a wide range of fields, and also learn about the application of chemistry for solving problems in modern society to realize a sustainable society. They develop practical skills to identify and solve academic and social issues, and acquire research capabilities in chemistry to create academic and social value. A master's degree (Engineering) is awarded to those who have the skill and ability to apply the basic concepts of engineering, and a doctoral degree (Engineering) is awarded to those who have a wide scope of engineering knowledge and have proven their expertise in applying these concepts.
2. Curriculum Policy	We offer a series of lecture courses teaching cutting-edge chemistry and related disciplines, and the application of chemistry to social issues; exercise courses to cultivate practical skills that enable the discovery of problems and the design of solutions; guidance covering master's and doctoral research to cultivate the research ability to create academic and social value related to chemistry.

Learning Outcome 1	Has extensive knowledge pertaining to advanced chemistry, and in a wide range of related fields, and regarding the challenges of modern society and sustainability.
Learning Outcome 2	Has the practical ability to discover and design relevant solutions for academic and social issues.
Learning Outcome 3	Has the research capability to create academic and social value related to chemistry.
Learning Outcome 4	
Learning Outcome 5	
Learning Outcome 6	

Department	Department of Life Science and Medical Bioscience
Course	Master, Doctor
Degree	Master（Engineering/Science）, Doctor（Engineering/Science）

1. Diploma Policy	The curriculum of this major is based on physics and chemistry, which grasp phenomena at the molecular level of micro– and nano–meter orders, and aims to acquire knowledge of life science, medical science and medical engineering by understanding biological phenomena, especially molecular biology. On the basis of the body of the knowledge, students acquire capabilities to develop new research fields by merging the medical science field and the science and engineering field. In the master course, master thesis is evaluated. Master of science degree is conferred when a student is admitted to have enough knowledge and ability to search for the truths of science in the bioscience and medical science fields, and master of engineering degree is conferred when a student is admitted to have enough skill and ability to be applied in the medical science and medical engineering fields. In the doctoral course, students pursue original researches under supervision, publish results in international journals and academic meetings, and write doctoral dissertations. Doctor of science degree is conferred when a student is admitted to have capability to elucidate high–level knowledge and novel scientific truths, and doctor of engineering is conferred when a student possesses wide range of knowledge in engineering and skill and capability to realize application.
2. Curriculum Policy	Students learn information science and research ethics, which are necessary in practicing research and development, in addition to specialized subjects in science and engineering, life science and medical science fields. Students also acquire cutting–edge biotechnologies including bioimaging and biomaterial manipulation in laboratories after learning practical experimental skills in handling chemicals and analytical devices, manipulation of genes and proteins, cell culture techniques and animal experiments. On the basis of these knowledge and technologies, students perform practical researches and write a thesis in the master course, and their capabilities in research and writing skills are evaluated. In the doctoral course, students perform original research under supervision and acquire capabilities to present results in international meetings and journals and to write a dissertation.

Learning Outcome 1	Students master the capabilities to understand and search biological phenomena at the molecular and cell levels.
Learning Outcome 2	Students acquire the capabilities to handle physics, chemistry, mathematics and information science as tools to promote biological and medical researches.
Learning Outcome 3	Students develop the capability to develop cutting–edge biotechnologies by integrating knowledge of life science and science and engineering.
Learning Outcome 4	Students master the capabilities to search for causes of diseases and to develop diagnoses and treatments by learning basic medicine and medical engineering.
Learning Outcome 5	Students cultivate the capabilities to understand latest research topics in bioscience and to develop original researches globally.
Learning Outcome 6	

Department	Department of Electrical Engineering and Bioscience
Course	Master, Doctor
Degree	Master（Engineering/Science）, Doctor（Engineering/Science）

1. Diploma Policy	The goal is to foster researchers and engineers who acquire the ability to see things from multiple perspectives through the systematic educational curriculums. The Graduate School aims to equip students with the qualities and abilities required for Master's students to work professionally as researchers, technology developers or system development managers, and Doctoral students as research specialists or technological development leaders, before completing their degrees and going out into the world to build a career. Master of Engineering or Doctor of Engineering will be offered to the students with the abilities acquired through the Master's or Doctor's courses in electric and electrical engineering and information technology, while Master of Science or Doctorate of Science will be offered to the students with the abilities acquired through the Master's or Doctor's courses in information science and bioscience.
2. Curriculum Policy	The Graduate School provides research guidance, seminars, and specialized courses in multi-disciplinary domains such as electric and electrical engineering, information technology and science, and bioscience. The systematic educational curriculums help students to further strengthen their expertise. They also help students to develop the ability to expand their knowledge in other fields of specialization and pioneer new multi-disciplinary domains.

Learning Outcome 1	The students in electric engineering will further strengthen their expertise and acquire the international communication skill as well as the abilities to contribute to the future research and development.
Learning Outcome 2	The students in electric engineering will further strengthen their expertise and acquire the international communication skill as well as the abilities to contribute to the future research and development for nanoscience and medical electronics.
Learning Outcome 3	The students in information engineering and science will further strengthen their expertise and acquire the international communication skill as well as the abilities to contribute to the future research and development for system design and data science.
Learning Outcome 4	The students in bioscience will further strengthen their expertise and acquire the international communication skill as well as the abilities to contribute to the future research and development for life science and bioengineering.
Learning Outcome 5	The students in inter-disciplinary domains will further strengthen their expertise and acquire the international communication skill as well as the abilities to contribute to the future research and development to pioneer new multi-disciplinary domains.
Learning Outcome 6	

Department	Department of Integrative Bioscience and Biomedical Engineering
Course	Master, Doctor
Degree	Master(Engineering/Science), Doctor(Engineering/Science)

1. Diploma Policy	The Department of Bioscience and Biomedical Engineering, with faculty members from several departments and faculties, has been developing a unique education and research environment by integrating "engineering" and "science" and adding "medicine" from Tokyo Women's Medical University. Most of the education and research is conducted at the Center for Advanced Biomedical Sciences (TWIns), where a diverse group of faculty members with different backgrounds come together to conduct original research. Faculty members with different backgrounds are brought together to create an environment for unique research in interdisciplinary fields. This department fosters engineers who can boldly take on the challenge of new bio-industries that meet the needs of society, and talents who can open up the frontiers of biological research. In the master's program, the master's thesis is reviewed, and the Master of Engineering degree is awarded when it is recognized that the student has sufficient knowledge and ability to promote research in each specialized field of Biomedical Engineering in addition to specialized knowledge in mechanical engineering, physics, chemistry, or human science. The Master of Science degree is awarded to students who are recognized as having sufficient knowledge and ability to promote research in each specialized field of Bioscience, in addition to specialized knowledge in biology or physics. In the doctoral program, students conduct original research that develops, advances, and deepens the interdisciplinary research areas of life science and bioengineering under research guidance in each research area, and publish their original research in peer-reviewed journals. In the examination of the doctoral thesis, the degree of Doctor of Engineering will be awarded when the student is recognized to have the ability to conduct original interdisciplinary research related to life utilizing mechanical engineering, physics, chemistry, or human science The degree of Doctor of Science will be awarded to students who are recognized as having the ability to conduct original interdisciplinary research related to life science utilizing biology and physics.
2. Curriculum Policy	In order to take advantage of the characteristics of a multidisciplinary department, faculty members with different backgrounds offer a variety of specific lecture courses related to Bioscience and Biomedical Engineering. The department also offers practical training courses that allow students to observe and discuss advanced medical treatment, and to experience manufacturing and electronic crafts in the fields of biomedical engineering. In addition, since its establishment in 2001, the department has offered two required courses: one for ethics education, which is necessary in the field of Bioscience and Biomedical Engineering, and the other for group work, in which students with various backgrounds work on common problems and discuss them with faculty members in the Department of Bioscience and Biomedical Engineering.

Learning Outcome 1	Students will acquire specific knowledge in the field of Bioscience and Biomedical Engineering
Learning Outcome 2	Students will acquire knowledge of bioethics.
Learning Outcome 3	Students will conduct group work on multidisciplinary issues with students from different disciplines and acquire the ability to make clear presentations.
Learning Outcome 4	Through research guidance and seminar courses, students will acquire the knowledge directly necessary to promote their research, as well as the ability to construct and express logically.
Learning Outcome 5	Through master's thesis research and doctoral thesis research, students will acquire the ability to find the essence of problems, to conceptualize ways to solve problems, and to use interdisciplinary expertise to solve problems.
Learning Outcome 6	Students will acquire the ability to write a master's thesis or doctoral thesis of academic value. In the doctoral course research, students will publish at least the specified number of peer-reviewed original papers.

Department	Department of Nanoscience and Nanoengineering
Course	Master, Doctor
Degree	Master(Engineering/Science), Doctor(Engineering/Science)

1. Diploma Policy	Department of Nanoscience and Nanoengineering consists of three research fields: Nanoelectronics, Nanochemistry, and Solid-state Nanoscience. Leading-edge studies are carried out utilizing the higher potentials and specialties of each research filed. Nanoscience and nanoengineering are the studies deepening our understanding of various phenomena in natural science from the view point of atomic/molecular scale, being the basis of almost all studies in science and technology. In this department, students can receive their special education, from the faculty members in the interdisciplinary research fields, such as for acquiring the ability to contribute to the creation of new industries. In the master course, in addition to taking lectures/exercises, students are required to do their research under the supervision of faculty members, results of which should be summarized in their master thesis. In carrying out the researches, students are encouraged to make presentations in international conferences and submit papers to scientific journals. Master's degree of Science is given to students who are qualified to have the ability to contribute to pursue the truth in science. Master's degree of Engineering is given to students who are qualified to have the ability to contribute to develop new technologies. In the doctoral course, students are expected to carry out highly original researches with the help of their supervisors, the results of which should be presented such as in international conferences and scientific journals. They have to summarize the research results as a doctoral thesis. Doctor's degree of Science is given to students who are qualified to have the ability to independently explore the truth of science with advanced knowledge acquired in the doctoral course. Doctor's degree of engineering is given to students who are qualified to have the ability to develop new applications and technologies with extensive knowledge acquired in the doctoral course.
2. Curriculum Policy	The department provides studies in the distinctly interdisciplinary fields of nanoscience and nanoengineering. Students, who received basic education in their undergraduate school, receive education and engage in studies in a completely new environment to acquire the ability to contribute such as to the creation of new industries by applying nanoscience and nanotechnology. In addition to the research instructions by the faculty members working at the forefront of their research fields, various lectures and exercises in the interdisciplinary fields are provided. For students aiming to take a master's degree of science, educations for having the ability to contribute in developing new research fields are provided. For students aiming to take a master's degree of engineering, educations for having the ability to contribute in developing new technologies and applications in industries are provided. For students aiming to take a doctor's degree of science, educations of more practical and advanced studies are provided for having the ability to independently explore new research fields. For students aiming to take a doctor's degree of engineering, educations of more practical and advanced studies are provided for having the ability to independently explore new applications and technologies in industries.

Learning Outcome 1	Acquirement of specialized knowledge to understand the basics of various phenomena in natural science, and abilities to explore new phenomena and reveal their principles for creating new science and technologies.
Learning Outcome 2	Acquirement of the ability to create and establish new research fields, by proper understanding of the social demands to the society of science and engineering.
Learning Outcome 3	Acquirement of the ability to promote their researches in the international environments for returning their research results to society.
Learning Outcome 4	Acquirement of the initiative attitude in solving various issues, based on the own knowledge and abilities to collaborate with various people.
Learning Outcome 5	
Learning Outcome 6	

Department	Cooperative Major in Advanced Biomedical Sciences
Course	Doctor
Degree	Doctor(Life and Medical Scieneces)

1. Diploma Policy	Medical Regulatory Science integrates social sciences (economics, business administration, laws, etc.) and humanities (ethics, psychology, etc.) as well as natural sciences (medicine and engineering) in order to conduct evaluation, prediction, adjustment, and decision in social implementation of life science, pharmaceuticals medical devices, medical technologies, and medical policies based on scientific grounds. Therefore, a diploma will be conferred to a person by the following reasons. (1)He/she has acquired scientific research methods and expert knowledge, and is recognized to have the ability to work as an expert in the field at professional societies and committees domestically and internationally, and the ability to make practical contributions to society (use of knowledge) as a leader; and (2)He/she has presented doctoral dissertation on scientific research that explores new fields through the discovery and analysis of new issues, the proposal of evaluation scales and technical standards, the development of experimental analytical methods, and the formulation of problem solutions and policies.
2. Curriculum Policy	The major provides a course of education that will enable students to develop the abilities set forth in the diploma policy in the area of medical regulatory science. The curriculum consists of biostatistics, bioethics, clinical research, and medical regulatory science, which are the fundamentals of this field. In addition, the students take corresponding exercise courses, practical training in the field of advanced medical care, and seminar courses for discussion with specialists in other fields in cooperation with research supervisors. They learn the ability to discover, solve problems, communicate and present their research. Since there are a wide variety of research themes in the field of medical regulatory science, it is necessary to have teaching staffs in various fields, and teachers in charge of each course will be assigned to include external experts.

Learning Outcome 1	Students can acquire a wide range of expertise in the medical regulatory science field and acquire the ability to apply it in society.
Learning Outcome 2	By experiencing the convergence of different fields in the field of medical regulatory science, students can acquire the ability to think from multiple perspectives, including research, development, examination, medical care, patients, and society.
Learning Outcome 3	Students can acquire the ability to think, judge, and adjust for the correct understanding of bioethics and its implementation.
Learning Outcome 4	Students can investigate the current states of pharmaceutical affairs and medical care, understand them objectively as numerical data, and acquire the ability to compose logic based on the results analyzed by statistical methods and expressiveness.
Learning Outcome 5	Students can acquire the ability to discover potential problems in Japan through international comparative surveys and communication regarding the impact of medical care on society.
Learning Outcome 6	Students can foster an attitude to take a multifaceted view of life science, medical care, and social events, to soundly criticize the current state of medical care, to predict problems that may occur in the near future, and to set up solutions and make constructive proposals.

Department	Cooperative Major in Advanced Health Science
Course	Doctor
Degree	Doctor(Life and Medical Scieneces)

1. Diploma Policy	To acquire a wide range of multifaceted basic knowledge and experimental/measurement skills in agriculture, engineering, and health science, which are the foundation of advanced health science, through the joint graduate school curriculum between Waseda University and TUAT. To acquire cutting-edge expertise and experimental/measurement techniques in biotechnology, food, drug discovery, sports science, veterinary medicine, and medical science. To acquire a comprehensive understanding of agricultural science, engineering, and health science, originality to understand the relationships among interrelated problems clearly and identify and implement issues in each specialized field and interdisciplinary field from an international perspective. To learn how to organize experimental data, prepare materials for presenting research results, and acquire practical presentation skills and the ability to answer questions accurately based on logic. To understand the industrial structure of the health science field, the social responsibilities of related companies, and the management of intellectual property rights, researchers and engineers' social mission and acquire the skills to become R&D leaders for social implementation. To develop presentation, discussion, and communication skills in English for international collaborative research and to acquire the ability to facilitate creative research projects actively.
2. Curriculum Policy	Students will study specialized subjects, major-based subjects, and seminar subjects related to agriculture, engineering, health science, and various systems related to advanced health science in a cross-sectional manner through a joint graduate school curriculum between Waseda University and TUAT. They will acquire multifaceted basic knowledge and a variety of cutting-edge experimental and measurement techniques.In addition, through the Advanced Health Science Seminar and thesis guidance, students will acquire the ability to develop original research, problem sets, and technological development. Students learn about the interconnectedness of the interdisciplinary fields of health science and the foundations that support the knowledge and skills of the specialized fields through the lectures on life science and environmental science, which are the specialized subjects, and the major-based subjects, and develop the ability to discover issues in each specialized field and their interdisciplinary or fusion fields. In addition, students will engage in international English language skills training through professional communication and technical presentations in practical English education courses, advanced health science research in seminar courses, obtaining problem-solving skills through practical presentations and the ability to implement solutions. Students are encouraged to participate in overseas training and international conference presentations through practical training to develop practical presentation skills and a sense of advanced science and technology in a global research environment. To develop engineers, researchers, and educators who have acquired the skills specified in the Diploma Policy, grades are evaluated by examinations and reports in lecture courses and by reports and oral examinations in experiments, practical training, and exercises. The grades of the examinations of the class subjects are expressed with five grades, S, A, B, C, and D. S, A, B, and C are passing grades, and D is a failing grade. Students who pass the examination will be given the prescribed credits. For the dissertation, the examination standards and methods are clearly stated. The dissertation examination and final examination are conducted strictly by the dissertation examination committee based on these standards and processes.

Learning Outcome 1	Possess a rich culture, a broad international perspective, and high ethical standards through advanced graduate education that integrates science, engineering, and agriculture.
Learning Outcome 2	Possess cutting-edge expertise and experimental/measurement techniques in biotechnology, food, drug discovery, sports science, veterinary medicine, and medical science
Learning Outcome 3	Possess a comprehensive understanding of agriculture, engineering, and health sciences, originality to understand the relationships among interrelated issues clearly, and the ability to identify and implement issues in each specialized field and interdisciplinary field from an international perspective.
Learning Outcome 4	
Learning Outcome 5	
Learning Outcome 6	

Department	Cooperative Major in Nuclear Energy
Course	Master, Doctor
Degree	Master(Engineering/Science), Doctor(Engineering/Science)

1. Diploma Policy	The goal is to foster capable individuals who can apply a high level of technical expertise of science and engineering, covering nuclear power and/or radiation applications, to the globalizing world with deep understanding of ethics. The Cooperative Major in Nuclear Energy aims to foster scholars and engineers who can utilize the-state-of-the-art understanding and technical expertise of nuclear power and/or radiation applications to explore the cutting-edge issues and find solutions by developing the logical processes. In particular: Fostering individuals with interdiscipline on theoretical and logical development based on a high level of understanding and technical expertise is the policy for the Master of Science. Fostering individuals with the ability to develop and present practical solutions based on a high level of understanding and technical expertise is the policy for the Master of Engineering. Fostering individuals with interdiscipline on theoretical and logical development based on a high level of understanding and technical expertise, as well as the ability to take leaderships in identifying the cutting-edge issues and finding new solutions, is the policy for the Doctor of Science. Fostering individuals with the ability to develop and present practical solutions based on a high level of understanding and technical expertise, as well as the ability to take leaderships in identifying the cutting-edge issues and finding new solutions, is the policy for the Doctor of Engineering.
2. Curriculum Policy	The educational and research curriculum is developed jointly with Tokyo City University to provide programs not only for nuclear power and radiation application, but to foster innovative new science and engineering with other fields. The program is designed to foster core competence not only in technical fields of nuclear power and radiation applications, but also in the human nature through deep understanding of safety and ethical thinking. The program covers from the basic understanding and skills to practical issues in the society. Through the program, the key competence of scholars and engineers to identify and resolve highly complex and emerging issues of the society are fostered. Specialized courses are developed for the basic fields such as reactor systems, reactor safety and radiation application as well as for cross-cutting fields among these basic fields and for seismic technology and risk evaluation and management. Furthermore, Master's course of Science is developed to foster abilities to identify and resolve complex issues of the society from the viewpoint of interdisciplinary in theoretical and logical development. Master's course of Engineering is developed to foster abilities to identify, develop and present practical solutions to complex issues of the society. Doctor's course of Science is developed to foster abilities to identify and resolve complex issues of the society from the viewpoint of interdiscipline on theoretical and logical development and to take leaderships throughout the process. Doctor's course of Engineering is developed to foster abilities to identify, develop and present practical solutions to complex issues of the society and to take leaderships throughout the process.

Learning Outcome 1	Students will acquire creativity and constructive thinking (an enterprising spirit and ability to construct new concepts that break with tradition) and be able to apply the ability in the fields of nuclear power and radiation applications.
Learning Outcome 2	Students will acquire the ability to identify problems and their solutions (the capacity to articulate or simulate new problems and to propose as well as logically explain solutions to these problems) and be able to apply the ability in the fields of nuclear power and radiation applications.
Learning Outcome 3	Students will acquire effective communication skills (the ability to create mutual understanding with others in order to make the most of one's proficiencies and training) and be able to apply such skills in the fields of nuclear power and radiation applications.
Learning Outcome 4	Students will acquire spirit of inquiry (a willingness to examine social and natural phenomena in a multifaceted way; to think critically about the framing of and solutions to existing problems; and make constructive proposals in response to these problems) and be able to apply such spirit in the fields of nuclear power and radiation applications.
Learning Outcome 5	Students will acquire a spirit of autonomy and tolerance (a fair and receptive attitude toward diversity as well as an ethos of independence and acceptance of the individuality of both oneself and others)and be able to apply such a spirit in the fields of nuclear power and radiation applications.
Learning Outcome 6	Students will acquire international character (putting intellectual resilience and flexible sensitivity in service of working with others to solve global challenges) and be able to apply such character in the fields of nuclear power and radiation applications.