Student Handbook 2017

Graduate School of Materials Science

学生ハンドブック

履修案内・キャンパスライフ・諸規則

物質創成科学研究科

奈良先端科学技術大学院大学

Nara Institute of Science and Technology

無限の可能性、ここが最先端 — Outgrow your limits —

平成29年度 カレンダー

4 April

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I Educational policies of the Nara Institute of Science and Technology

Objectives

As a university composed solely of graduate schools, NAIST promotes cutting edge research and offers a sophisticated outcome-based education for each student so as to promote advances in science and technology and in society as a whole.

Educational mission

NAIST was founded in October 1991 as a graduate university which nurtures individuals who will contribute to the development of advanced science and technology. Research and education at NAIST cover the three core areas: Information Science, Biological Sciences and Materials Science.

In order to promote a suitable standard of living for people throughout the world in the 21st century, and indeed to secure our very survival, the coming generation of leading researchers must possess the highest scientific and technical competence, along with a clear grounding in professional ethics. At NAIST, we aim to cultivate such researchers and educators.

Therefore, in addition to the areas of Information Science, Biological Sciences and Materials Science, we actively encourage interdisciplinary research and provide educational training in the principles of ethics and intellectual property.

Objectives for each individual student

Education and research in NAIST Master's Courses cultivate sophisticated expertise and personal initiative to support society and the economy. The Doctoral Courses are designed to nurture in researchers and engineers a drive to seek new frontiers in science and technology and to take on leading roles internationally.

Educational policy

In addition to a specialized education, a wide-ranging curriculum cultivates ethical thinking, vision, theoretical thinking, comprehensive judgment and sharpened writing skills.

A coordinated educational program is offered by the three Graduate Schools to promote interdisciplinary research and cooperative programs are offered with centers of education and research institutions abroad.

The quality of education is maintained through external evaluations, student-evaluations, improved research environments, and economic assistance for competent students.

Nara Institute of Science and Technology
Admission Policy

【Prospective Students】

NAIST welcomes applications from highly motivated individuals seeking a world-class, inter-disciplinary graduate education based on information, biological, or materials sciences. Promising candidates are welcomed regardless of their nationality or their research background during undergraduate studies. The university also welcomes scientists, engineers and others currently engaged in researches who demonstrate a unique enthusiasm for scientific pursuit.

○Graduate School of Information Science

The Graduate School of Information Science seeks people who are able to think logically and articulate their thoughts, and who seek an ability to respond flexibly to change in the science and technology of information and communications.

1. Applicants to the master's courses must demonstrate a strong curiosity and a willingness to take on entirely new challenges.
2. Applicants to the doctoral courses must demonstrate the potential to identify problems in specialized fields and approach them with practical solutions.

○Graduate School of Biological Sciences

The Graduate School of Biological Sciences seeks the following types of students:

1. Those with enthusiasm and drive for discovering the basic principles underlying life phenomena and biotic diversity at the molecular and cellular levels.
2. Those with a keen interest in applying their expertise in biological sciences toward solving society's problems while working in one of the many fields of science and technology.

○Graduate School of Materials Science

The Graduate School of Materials Science seeks the following type of students:

1. Those who are highly motivated to conduct creative research in materials science or interdisciplinary scientific pursuit.
2. Those with a keen interest in technological innovation related to social problems and the needs of industry.

【Admission Policy】

Qualified candidates are evaluated based primarily on their potential through interview. In addition, NAIST utilizes a variety of measures in the admission process, including entrance examinations based on recommendation.

Nara Institute of Science and Technology

Diploma Conferment Policy (Diploma Policy)

Nara Institute of Science and Technology (NAIST), a national graduate university without undergraduate departments, promotes cutting-edge research, offers advanced education based on research accomplishments, trains human resources, and thereby contributes to the progress of science and technology and social development. To this end, NAIST defines its diploma policy as follows.

Master's course

Students who receive a master's degree from NAIST must have attained (i) a broad perspective that is necessary for contributing to society and the economy, (ii) knowledge in specialized fields, (iii) research techniques in their majors, and (iv) capabilities that are required for professional occupations such as researchers and engineers. A master's degree (engineering, physical science, or bioscience) shall be conferred on individuals who have acquired the following knowledge and abilities:

1. Extensive knowledge related to information science (in the Graduate School of Information Science), bioscience (in the Graduate School of Biological Sciences) or materials science (in the Graduate School of Materials Science), and advanced knowledge in specialized fields
2. The ability to undertake research and development processes
3. Presentation and communication skills

Doctoral course

Students who earn a doctoral degree from NAIST must have (i) the ability to conduct research as independent researchers or to engage in other professional activities, (ii) extensive knowledge as the basis of such ability, and (iii) the ability to play leading roles in the international community. A doctoral degree (engineering, physical science, or bioscience) shall be conferred on individuals who have acquired the following knowledge and abilities:

1. Extensive and profound knowledge related to information science (in the Graduate School of Information Science), biosciences (in the Graduate School of Biological Sciences), or materials science (in the Graduate School of Materials Science), and advanced knowledge in specialized fields required of highly creative researchers
2. The ability to identify and solve problems, and to plan and promote research
3. Presentation skills
4. An international mindset (including English proficiency) and communication skills

Nara Institute of Science and Technology

Curriculum Development and Implementation Policy (Curriculum Policy)

Master's course

This systematic curriculum for specialized education is designed to train human resources who will be engaged in the research, utilization, and/or popularization of advanced science and technology at education and research institutions, companies, etc. in Japan and abroad. The curriculum facilitates students develop the required ethical awareness, as well as a broad perspective, logical thinking abilities, and excellent linguistic skills.

Doctoral course

In addition to the policy for the master's course, this curriculum facilitates students developing advanced research abilities and an international mindset, in order to train ambitious human resources who are committed to science and technology and will play leading roles in the international community.

○Graduate School of Information Science

Master's course

The educational policy of the master's course is as follows:

1. To enable students to acquire extensive knowledge about information science and advanced knowledge in specialized fields
2. To accommodate students from various fields with appropriate curriculum
3. To facilitate the development of broad student perspectives, without focusing solely on specialized fields
4. To foster the attainment of English proficiency required of researchers
5. To facilitate student development of presentation and communication skills
6. To cultivate in students the ability to identify and solve problems in specialized fields

Doctoral course

The educational policy of the doctoral course is as follows:

1. To facilitate student acquisition of profound knowledge in specialized fields through discussion and lectures
2. To facilitate the development of student initiative-taking abilities in planning and implementing research projects
3. To facilitate student development in presentation and communication skills required of international scientists

4. To facilitate student development of a broad, far-reaching perspective, without focusing solely on specialized fields
5. To facilitate student development of the ability to tackle unknown problems

○Graduate School of Biological Sciences

Master's course

The educational policy of the master's course is as follows:

Bio-Expert course

1. To develop curricula that facilitate student acquisition of extensive knowledge related to bioscience
2. To facilitate student development of research capabilities as the foundation of bioscience
3. To provide education toward improving English proficiency in science
4. To employ small-group classes to improve presentation and communication skills
5. To facilitate student development of (i) the ability to consider issues and ideal models of science and technology in industry and society and (ii) ethical ideals

Frontier Bio course

1. To develop curricula to foster student acquisition of extensive and profound knowledge related to bioscience
2. To facilitate student acquisition of research capabilities to take full advantage of the latest equipment and technologies
3. To provide education toward improving English proficiency in science
4. To employ small-group classes to help improve presentation and communication skills
5. To facilitate student development of (i) the ability to consider issues and ideal models of science and technology in research activities and (ii) ethical ideals

Doctoral course

The educational policy of the doctoral course is as follows:

1. To facilitate student acquisition of more profound, extensive, and advanced expertise related to bioscience
2. To facilitate student development of investigative abilities to identify problems that should be solved
3. To facilitate student development of thinking and logical abilities so that they can propose solutions to problems
4. To facilitate student acquisition of advanced research abilities so that they can implement measures they propose

5. To facilitate student development of communication skills to exchange useful information and have discussions with other researchers in both Japanese and English
6. To facilitate student improvement of presentation skills so they can promote their accomplishments

○ Graduate School of Materials Science

Master's course

The educational policy of the master's course is as follows:

1. To develop curricula that facilitate student acquisition of extensive knowledge and expertise related to materials science
2. To facilitate student acquisition of research and development abilities as the foundation of materials science
3. To provide small-group education toward improving English proficiency
4. To offer education to facilitate student improvement of presentation and communication skills
5. To offer an extensive range of general subjects to raise student awareness of social developments

Doctoral course

The educational policy of the doctoral course is as follows:

1. To facilitate student development of advanced research abilities and acquire extensive, profound, and advanced knowledge related to materials science through advanced research activities and lectures related to materials science
2. To offer education that enables students to experience discussions from various aspects
3. To offer education that underscores the importance of presenting research accomplishments
4. To offer education that fosters students' international mindset (including English proficiency)
5. To develop student abilities to take initiative in planning and managing research projects

February 21, 2008

Code of Conduct for Research Activities at NAIST

"Research activities" refers to actions that generate new findings and construction of systems of knowledge based on reflections, thinking, and ideas while continually using facts and data obtained by means of surveys, observations, experiments and other activities as raw material, building on the results of studies carried out by previous researchers.

The fruits of such activities form the building blocks for the common intellectual assets of humanity, underpinning human happiness as well as economic and social development.

Such research activities have as their premise the integrity of researchers toward their research activities. Dishonest behavior, including the fabrication or falsification of data or results, plagiarism of the results of others' work, multiple publication of the same results, and inappropriate authorship whereby the authors of a paper are not attributed correctly, is contrary to the basic character of research activities. Such actions are unacceptable under any circumstances, and will be dealt with severely.

Given this fundamental awareness of research activities, NAIST has set out the following Code of Conduct outlining the behavior expected of all those involved in research activities at the university (hereafter "researchers") during the performance of research.

1. Responsibilities of Researchers

Researchers shall be responsible for guaranteeing the quality of the specialist knowledge and techniques they themselves generate, and shall also be responsible for using their specialist knowledge, techniques, and experience for social safety and well-being, and for environmental preservation.

2. Actions of Researchers

Researchers shall act with integrity on the basis of correct beliefs, constantly reviewing their attitude toward and approach to research in the awareness that the autonomy of science is built on the trust and mandate of society. They shall both make the utmost efforts to demonstrate the accuracy and appropriateness of the knowledge generated by their research in a scientific and objective manner, and participate actively in the mutual evaluation of researchers within the scientific community, particularly in their own fields of specialization.

3. Self-Improvement

Researchers shall endeavor to maintain and improve their own specialist knowledge, abilities, and skills, and shall also strive unremittingly to understand the relationships of science and technology with society and the natural environment from a broad perspective.

4. Explanation and Disclosure

Researchers shall proactively disclose and explain the significance and role of the research in which they are involved, assessing the potential effect of this research on humanity, society, and the environment as well as any changes it may cause, and shall publish the results in a neutral and objective manner, while striving to build up a constructive dialogue with society.

5. Research Activities

Researchers shall act with integrity and in accordance with the spirit of this Code of Conduct during the process of making proposals, planning, submitting applications, carrying out research, reporting, and conducting other activities connected with their own research. They shall be scrupulous with respect to the recording and storage of research and survey data and strictly impartial treatment, without engaging in dishonest behavior such as fabrication, falsification, or plagiarism, nor shall they be complicit in such behavior.

6. Improvement of Research Environment

Researchers shall be aware that the establishment and maintenance of a fair research environment that enables the implementation of responsible research and the prevention of dishonest behavior is also an important obligation, and shall be actively engaged in improving the quality of the research environment of both the scientific community and the organization to which they belong. They shall also strive to obtain the understanding and cooperation of society in order to achieve this.

7. Appropriate Use of Research Funds

When using research funds, researchers shall comply with all applicable legislation, university regulations and other rules, and conditions, rules for use, and other stipulations set out for all types of externally funded research.

8. Concern for Research Subjects, the Environment, Safety, and Related Issues, and Respect for Bioethics

Researchers shall respect the persons and human rights of those who cooperate in their research, and shall take their well-being into account. When dealing with materials that could have an adverse effect on the environment or safety during the implementation of research (radiation, radioactive isotopes, genetically modified organisms, nuclear fuel material, non-native species, poisonous materials, environmental pollutants, etc.), they shall comply with all applicable legislation, university regulations, guidelines and other stipulations issued by academic societies and other bodies concerned, and shall have the greatest possible respect for bioethics in research on human or animal subjects.

9. Interpersonal Relationships

Researchers shall both evaluate others' results appropriately and listen humbly to criticism of their own research, exchanging opinions with an attitude of sincerity. They shall comply with the obligation of confidentiality concerning the intellectual property rights of others. In particular, they must pay strict attention to compliance with the obligation of confidentiality concerning information obtained during the review process for papers or research funds. They shall also endeavor to protect the personal information of others obtained during the process of research, and take appropriate measures for its handling.

10. Elimination of Discrimination and Harassment

Researchers shall not discriminate against any individual on the basis of his or her race, gender, rank, ideology, religion, or for any other reason, but shall treat each person fairly while respecting the freedom and person of the individual. They shall not use their status or authority to disadvantage any person under their instruction, guidance, or similar circumstances in either word or deed.

11. Conflicts of Interest

Researchers shall pay careful attention to any conflict of interest that may arise between an individual and his or her own institution or another organization in the course of their research, review, evaluation, judgment, or other undertaking, and shall deal with it appropriately while giving due consideration to its public nature. Researchers shall also comply with the NAIST Conflict of Interest Policy and related policies.

2 Concept of the Graduate School of Materials Science

Introduction to the Graduate School of Materials Science

Based on a deep understanding of materials and their mechanisms at the electron, atomic, and molecular levels, the Graduate School of Materials Science (GSMS) aims to elucidate novel structures and unique properties leading to the creation of new devices and functional materials for the future of humanity.

Based on the understanding of the interaction of light with matter, the GSMS pursues 'Photonic Nanoscience'. By promoting research and education from the perspective of "seeing with light", "creating with light" and "manipulating with light", the GSMS pioneers interdisciplinary fields beyond the existing scientific disciplines of physics, chemistry, biology and electrical engineering. Through this approach the GSMS fosters excellence in research and systematically educates students to become leaders in both science and in the global society.

Leading research accomplishments supported by an excellent environment

With internationally renowned and highly active professors, the GSMS produces leading research achievements, and receives abundant external research funds, such as Grants-in-Aid for Scientific Research. The faculty-to-student ratio in the GSMS is extremely high (1:5) and in-depth guidance is available under a multi-supervisor system. We offer cutting-edge experimental facilities and a spacious environment that allow all students to focus on their research and studies. The Research and Education Center for Materials Science and technical staff members holistically support students' study and research.

International Program

The GSMS established the International Mater's Course Program in April 2015. This program stimulates creative and internationally competitive research and development, and also facilitates an understanding of the history, culture and international engagement of Japan. All coursework and research leading to graduation is carried out in English. A wide range of materials science subjects are provided as well as such interdisciplinary topics as, intellectual property and ethics. In addition, students in the International Program are free to take most of the subjects that make up the Standard

Program (usually given in Japanese).

Bi-directional Industry-Academia Cooperation Program

In addition to the fundamental laboratories in basic research and education in materials science, the GSMS offers industry-academia collaborative laboratories developing new materials and new devices. Given that researchers from external institutions, including company laboratories, are in charge of these collaborative laboratories, students have many opportunities to study practical developments.

Wide-ranging student support systems

More than 60% of students in the master's program and all students in the doctoral program are able to reside in the dormitories on campus. Scholarships and research funds are also available. We also provide financial support to all students in the doctoral program and some in the master's program to attend overseas international conferences. We have exchange agreements with many institutions throughout the world, giving students a great opportunity to study abroad.

Research and Education

Center for Materials Science

The Center has a number of instruments and cutting-edge facilities operated by a team of technical staff who expertly support the full characterization of new materials, evaluation of novel properties, and nano-fabrications. The Center fully supports education, research and safety management.

In addition to the analysis and evaluation of new materials, the Research and Education Center for Materials Science focuses on design and synthesis of new functional materials essential in the areas of modern science and advanced technology, including nanotechnology, biological sciences, information technology, and the environment. This is efficiently achieved by close collaboration between the main and collaborative laboratories at the frontiers of materials science. The Center also has a commission test scheme for non-NAIST researchers who wish to use our analytical facilities.

Department of Materials Science

Laboratories and Faculty		Areas of Research and Education
Core Laboratories	■ **Quantum Materials Science (Yanagi, Katsuki Group)** Professor Hisao Yanagi Associate Professor Hiroyuki Katsuki Assistant Professor Atsushi Ishizumi Assistant Professor Satoshi Tomita	**Our educational activities are centered upon the laboratory's research in the creation of novel optical functional materials by measuring and analyzing the optical and quantum properties of nanomaterials, such as molecular crystals, nanoparticles, and ultrathin films. The techniques we use include laser spectroscopy, microspectroscopy, and probe microscopy.** ● Quantum effects, molecular crystals, nanoparticles, ultrathin films, organic electronics, photonics, organic lasers, organic solar cells, light emitting transistors, quantum dots, metamaterials, microspectroscopy, coherent control, time-resolved spectroscopy, femtosecond lasers, Raman spectroscopy
	■ **Surface and Materials Science (Daimon, Hattori Group)** Professor Hiroshi Daimon Associate Professor Ken Hattori Assistant Professor Sakura Takeda Assistant Professor Munetaka Taguchi Assistant Professor Hiroyuki Matsuda	**Our laboratory conducts research and educational activities concerning the physical properties (electrical conduction, magnetic and optical response) of surface nanomaterials, which are formed by the adsorption of atoms or molecules on solid surfaces. To this end, we utilize various equipment to elucidate such properties from atomic structures and electronic states, which form the basis of the physical properties. Additionally, we develop novel analysis techniques and equipment as needed.** ● Solid surfaces, strongly correlated materials, surface superstructure, surface electric conduction, surface magnetism, surface light emission, surface molecular adsorption, electron stimulated desorption, (cross-sectional) scanning tunneling microscopy, electron diffraction, electronic energy bands, angle resolved photoelectron spectroscopy, Fermi surfaces, hole subbands, strained semiconductors, two-dimensional photoelectron spectroscopy, photoelectron diffraction, atomic stereo photography, photoelectron holography, XAFS, photoelectron diffraction spectroscopy, radiation, circular polarization of light, photoelectron microscopes, three-dimensional reciprocal lattice mapping, first-principle calculation, Raman spectroscopy
	■ **Advanced Polymer Science (Fujiki Group)** Professor Michiya Fujiki	**We aim to design and synthesize a light-emitting, optically active polymer system and elucidate the relationship between its physical properties and optical functions.** ● Circular polarization of light, optical activity, helixes, semiconducting polymers, light emission, polysilane, π conjugated polymers, phthalocyanine, parity violation, physisorption
	■ **Photonic Device Science (Ohta, Tokuda Group)** Professor Jun Ohta Associate Professor Takashi Tokuda Assistant Professor Kiyotaka Sasagawa Assistant Professor Toshihiko Noda Assistant Professor Makito Haruta	**Our research and educational activities serve to create novel photonic devices, combining advanced semiconductor technologies and optical techniques. We are particularly interested in biomedical applications, such as artificial vision and brain implant devices, from both experimental and theoretical aspects of optical nanoscience technology.** ● Image sensors, photonic devices, artificial visual devices, implant devices, brain implant devices, biomedical photonic LSIs, fluorescence detection, CMOS integrated circuits, biocompatible materials, MEMS, μTAS, optogenetics, digital ELISA
	■ **Information Device Science (Uraoka, Ishikawa Group)** Professor Yukiharu Uraoka Associate Professor Yasuaki Ishikawa Assistant Professor Mutsunori Uenuma Assistant Professor Mami Fujii Assistant Professor Bermundo Juan Paolo Soria	**We pursue research into semiconductor elements and electronic devices with next-generation information functions, including displays, memory, LSIs, etc. By introducing new materials, such as bio-supramolecules, and environmentally friendly materials into semiconductor oxide thin-films on silicon or compound semiconductors, we aim to enhance these films' functionality.** ● Thin-film transistors, displays, flexible devices, oxide materials, system-on-panels, memory, LSIs, biological materials, fine machining processes, light-emitting elements, EL elements, nanoparticles, High-K, dielectric, high-frequency communication devices, power devices, printing, solar cells, electron-beam evaporation, photolithography
	■ **Synthetic Organic Chemistry (Kakiuchi, Morimoto Group)** Professor Kiyomi Kakiuchi Associate Professor Tsumoru Morimoto Assistant Professor Hiroki Tanimoto	**We investigate three broad areas: 1) the development of novel efficient methods for organic synthesis, using photo-irradiation and metal catalysts, 2) the creation of bioactive organic compounds by the developed synthetic methods, and 3) the production of functional organic materials by the developed synthetic methods.** ● Synthetic organic chemistry, organic photochemistry, organometallic chemistry, catalysis chemistry, flow chemistry, polycyclic organic compounds, taxol, alkaloids, carbon skeleton conversion, asymmetric photocycloaddition, microreactors, photolabile protecting groups, caged compounds, organometallic complexes, homogeneous catalysis
	■ **Biomimetic Materials Science (Kikuchi Group)** Professor Jun-ichi Kikuchi Assistant Professor Kazuma Yasuhara	**The laboratory performs research and educational activities with two main goals: 1) learning from natural ecosystems to develop molecular devices that work as artificial nanoorganizations and exceed such natural ecosystems, and 2) creating the next generation nanoscience that melds multiple fields such as material science, information science, and life science together.** ● Artificial multicellular systems, molecular devices, molecular communication interfaces, spatio-emporal molecular recognition, artificial cellular membrane matrixes, artificial signal transduction systems, artificial membrane transport, nanobioreactors, bio-inspired systems, cellular membrane dynamics, amphiphilic molecules
	■ **Supramolecular Science (Hirota, Matsuo Group)** Professor Shun Hirota Associate Professor Takashi Matsuo Assistant Professor Satoshi Nagao Assistant Professor Masaru Yamanaka Assistant Professor Hulin Tai	**We aim to 1) elucidate the structure and functional mechanisms of bio-supramolecules, 2) chemically reproduce the amazing functions of living organisms, and 3) develop new techniques to utilize these functions.** ● Supramolecular science, biomolecular science, nanobiotechnology, bioinorganics, organometallic chemistry, protein science, biophysical chemistry of living things, photochemistry, chemistry related to biological functions, synthetic organic chemistry, complex chemistry, catalytic reactions, optical switching technology, function control, enzyme reactions, metalloproteins, DNA, spectroscopy, functional materials, medicinal chemistry, diseases due to abnormal protein structure, pharmaceutics

Laboratories and Faculty		Areas of Research and Education
Core Laboratories	■ **Photonic Molecular Science (Kawai, Nakashima Group)** Professor Tsuyoshi Kawai Associate Professor Takuya Nakashima Assistant Professor Yoshiyuki Nonoguchi	**We advance the synthesis, development, analysis and evaluation methods for molecular and polymeric materials that respond to and/or control light, and semiconductor nanomaterials that strongly interact with organic molecules. Our target is to establish novel molecular systems that will support future information and energy technologies.** ● Photochemistry, synthesis of functional molecular materials, photochromism, molecular chirality, conductive polymers, luminescent metal complexes, nanocrystals, electrochromism, sensor molecules, thermoelectric conversion materials, nanowires, ionic liquids, nanotubes, electrochemistry
	■ **Photofunctional Organic Chemistry (Yamada, Aratani Group)** Professor Hiroko Yamada Associate Professor Naoki Aratani Assistant Professor Mitsuharu Suzuki Assistant Professor Hironobu Hayashi	**Our laboratory investigates and teaches 1) design and synthesis of novel π-conjugated compounds, and 2) physical property evaluation and functional development of these compounds. We aim to develop organic semiconductor materials, near-infrared absorbing dyes, light emitting materials, and photoresponsive molecules that can be used for organic thin-film solar cells and transistors** ● Functional organic materials, organic semiconductor materials, functional pigments, organic thin-film solar cells, porphyrinoids, acenes, physical organic chemistry, organic photochemistry
	■ **Sensing Device (Yanagida, Kawaguchi Group)** Professor Takayuki Yanagida Associate Professor Noriaki Kawaguchi Assistant Professor Go Okada Assistant Professor Naoki Kawano	**We develop bulk inorganic single crystals, ceramics and glass phosphors mainly for radiation measurements. Our focus of the research and educational activities is based on investigations of physical properties of electronic charges in the synthesized phosphors in relation with the optical properties, scintillation properties as well as the properties of thermally and optically-stimulated luminescence. Promising samples then become the subject of radiation detector unit development. We also develop characterization systems to study novel physical properties.** ● Radiation-induced fluorescence, scintillators, v phosphor, thermoluminescence, afterglow, mechanoluminescence, optical physics, quantum energy conversion, impact ionization, radiation measurement, radiation detectors, quantum beams, X-rays, gamma rays, neutrons, vacuum-ultraviolet light, near infrared light, photoelectric conversion elements, image diagnostic equipment, security equipment, individual radiation exposure dosimeters, detectors for high-energy physics, synchrotron radiation
	■ **Organic Electronics (Nakamura Group)** Professor Masakazu Nakamura Associate Professor Hiroaki Benten Assistant Professor Hirotaka Kojima Assistant Professor Jung Min-Cherl	**We investigate and give instruction concerning the creation of novel devices for environmentally-friendly power generation and future flexible electronics by 1) the control of organic thin-film growth, 2) the control of "soft" electronic properties specific to organic materials and its application to devices, and 3) the development of unique measurement techniques and elucidation of unexplained phenomena using them.** ● Organic semiconductors, polymer semiconductors, organic thin-film growth, scanning probe microscopy, grazing-incidence X-ray diffraction, terahertz time-domain spectroscopy, quantum chemical calculation, molecular dynamics simulation, thin-film transistors, solar cells, THz-wave imaging sensors, flexible thermoelectric generators
	■ **Bio-Process Engineering (Hosokawa Group)** Professor Yoichiroh Hosokawa Assistant Professor Takeo Katayama Assistant Professor Ryohei Yasukuni Assistant Professor Takanori Iino	**The Bio-processing Engineering Laboratory promotes developmental research on high-precision and fast manipulation methodologies for small biological materials, such as single cells and a few proteins, in which state-of-the-art laser technology is combined with microscopic manipulation technologies.** ● Development of single cell manipulation technology, applications of ultra-shot pulse laser, micro-fluidic chips, and Atomic Force Microscopes (AFM), mechanism investigation of laser-induced explosions acting on biological materials
	■ **Complex Molecular Systems (Kamikubo Group)** Professor Hironari Kamikubo Assistant Professor Yoichi Yamazaki Assistant Professor Yugo Hayashi	**Focusing on the autonomous assembly and disassembly phenomena that a protein molecule cluster exhibits, our group studies the following two areas: 1) the understanding of protein complex molecular systems which have the potential to be targets in drug discovery, and 2) the development of the next-generation protein molecular composite materials based on protein science and biophysics.** ● Complex molecular systems, protein science, biophysics, structural biology, protein design engineering, X-ray solution scattering, X-ray crystal structure analysis, neutron crystal structure analysis, low temperature spectroscopy, vibrational spectroscopy, fluorescence lifetime measurements, recombinant DNA technology, artificial proteins, spider silk, vesicle transportation systems, nerve axon-elongation systems, signal transduction systems, amyloid fiber, intermolecular interaction, intramolecular interaction, dynamic ordering analysis
	■ **Nanostructure Magnetism (Hosoito Group)** Associate Professor Nobuyoshi Hosoito Assistant Professor Takanobu Jujo	**We perform fundamental research and educational activities mainly in the following three areas: 1) preparation of nanostructures and multilayers that show unique magnetic properties, 2) elucidation of their structures and physical properties at the atomic and electronic levels, 3) clarification of the generation mechanism of functions, which will lead to the creation of novel magnetic materials.** ● Nanostructure magnetism, surface / interface magnetism, induced magnetism of conduction electrons, interlayer exchange coupling, giant magnetoresistance effect, spin electronics, magnetic structure analysis, resonant X-ray magnetic spectroscopy / scattering, synchrotron radiation
	■ **Precision Polymer Design and Engineering (Ando Group)** Associate Professor Tsuyoshi Ando Assistant Professor Kayo Terada Assistant Professor Mime Kobayashi	**We advance fundamental researches and educational activities toward design and creation of novel functional polymer materials by taking advantage of precision polymerization technique. For instance, we are creating fundamental materials leading to new biocompatible materials, scaffolds for tissue regeneration, drugs, and novel treatment methods.** ● Accurate designed polymers, helix-forming polymers, artificial collagen molecules, blood-compatible materials, antibacterial materials, intelligent materials, light responsible materials, peptides, biocompatible devices, gene therapy, artificial scaffolding, X-ray cancer treatment, drugs, DDS, cold atmospheric plasma, cell differentiation

	Laboratories and Faculty	Areas of Research and Education
Specific Research Laboratories	■ **Green Nanosystem (Matsui Group)** Associate Professor Fumihiko Matsui	**We conduct research and educational activities on the: 1) development of various analysis techniques and equipment, including non-destructive and atomic site-selective photoelectron diffraction spectroscopy, and 2) elucidation of the origin of local physical properties with the goal of developing functional materials and devices based on interfacial phenomena.** ● Local electronic states, atomic orbitals, photoelectron diffraction spectroscopy, all-direction-resolved photoelectron spectroscopy, interfaces/surfaces, synchrotron radiation, analyzer development
	■ **Nanomaterials and Polymer Chemistry (Ajiro Group)** Associate Professor Hiroharu Ajiro	**We design monomers at the molecular level based on the concepts of molecular technology and create polymeric materials with high functionality via polymer synthesis, control of interactions among polymers, and nano-structural control.** ● Biodegradable polymers, biocompatible polymers, biomaterials, gels, polymer structure control, inter-polymer interaction, stereocomplex, polymeric materials, nanostructure, molecular design, molecular techniques, thermoresponsivity, photoresponsivity, pH responsivity
	■ **Materials Informatics (Hatanaka Group)** Associate Professor Miho Hatanaka	**We develop the system to extract the key for the material design by using the techniques of machine learning and data mining based on the database of the chemical reaction pathways and the physical properties of functional materials obtained by the quantum chemical calculations.** ● Electronic structure calculation, quantum chemistry, Global Reaction Route Mapping strategy, analysis of reaction mechanism, database, data mining, machine learning, chiral catalyst, metal chatalyst, surface reaction, fluorescent material, luminescent probe, magnetic material
Collaborative Laboratories	■ **Mesoscopic Materials Science** ☆ Professor Eishi Fujii ☆ Professor Hideaki Adachi ☆ Assosiate Professor Tetsuya Asano	**Our research and educational fields are new physical phenomena and devices in mesoscopic scale, especially characteristic nature in thin films, and we are investigating novel devices such as oxide-electronics devices, energy conversion devices, and so on.** ● thin films, sputtering, perovskite materials, oxide electronics, ferroelectrics, piezoelectrics, thermoelectrics, solid-state ionics (Partnership Organization: Advanced Research Division, Panasonic Corporation)
	■ **Intelligent Materials Science** ☆ Professor Makoto Izumi ☆ Associate Professor Noboru Iwata	**We work on creating and applying materials to create novel devices and satisfy the needs of an advanced networking society, as well as a society that can adapt to clean energy and environmental technologies. (displays and semiconductor materials)** ● Oxide thin-films, nanoparticles, quantum dot semiconductors, photoelectric conversion materials (Partnership Organization: Corporate Research and Development BU, Sharp Corporation)
	■ **Functional Polymer Science** ☆ Professor Takahiro Honda ☆ Professor Hiroshi Enomoto ☆ Associate Professor Komei Okabe	**Focusing on the eye, we aim to establish a novel drug delivery system that allows active pharmaceutical components to exhibit their effects at a maximum at disease sites. We also aim to put the system into practical application, including drug discovery via approaches such as synthetic organic chemistry.** ● Medicinal science, drug formulation, synthetic organic chemistry, medicinal chemistry, pharmacokinetics, physical chemistry, molecular biology, pharmacology (Partnership Organization: Santen Pharmaceutical Co., Ltd.)
	■ **Ecomaterial Science** ☆ Professor Katsunori Yogo ☆ Professor Kazuya Goto ☆ Associate Professor Hidetaka Yamada	**Our main research themes are the development of methods for the separation, recovery and fixation of CO2 on a large scale and the development of novel technologies in a move towards a hydrogen energy society. To this end, we carry out basic research on advanced materials (material design and nano-structure control) and technologies for practical applications (process development and system design) that address the challenges occurring due to global warming.** ● Global warming, CO2 separation, capture, and fixation, new energies (hydrogen), membrane separation, adsorption techniques, nano-structure control, computer chemistry, process (Partnership Organization: Research Institute of Innovative Technology for the Earth [RITE])
	■ **Sensory Materials and Devices** ☆ Professor Keishi Kitamura ☆ Professor Masaki Kanai ☆ Associate Professor Shigeyoshi Horiike	**This laboratory investigates multi-functional system developments. In particular, we study 1) the fundamentals of sensing devices, such as MEMS (Micro Electro Mechanical Systems), radiation detectors and molecular imaging, 2) multi-functional devices, and 3) ultra-miniature chemical analysis systems that integrate and aggregate such technologies.** ● Sensor technology, μTAS (Micro Total Analysis Systems), MEMS, molecular imaging, microreactors, radiation detectors (Partnership Organization: Technology Research Laboratory, Shimadzu Corporation)
	■ **Advanced Functional Materials** ☆ Professor Yasuyuki Agari ☆ Professor Yutaka Fujiwara ☆ Associate Professor Masanari Takahashi	**Based on chemical synthesis and materials processing technology, our group carries out research and education activities on materials and technologies to address the challenges industries currently face, with a focus on key aspects of next-generation electronic, optical, and energy devices. We also address environmentally friendly materials and technologies.** ● Hyper-hybrid materials, biomass, energy storage materials, nanomaterials, thin film and fine particles/fibers, plating, interface control technology, thermal management technology, secondary batteries, fine printed wiring boards (Partnership Organization: Osaka Municipal Technical Research Institute)

☆ : Affiliate

3 Education and research guidance policy at the Graduate School of Materials Science

Master's course

The master's course offers educational programs to develop individuals who can take the initiative in research and development based on advanced expertise regarding materials science.

The specific image of individuals who this course targets is as follows:

(1) Individuals who wish to progress to the doctoral course and become highly creative researchers contributing to the future development of science and technology

(2) Individuals who can take the initiative in development and research activities primarily in the industrial sector

The Graduate School of Materials Science accepts students from diverse specialties and backgrounds to help them become advanced researchers and engineers in the field of materials science. The curriculum of this graduate school is organized with this goal in mind, so that students can flexibly take courses in line with the fields they wish to enter and the career paths that they wish to take. Students who wish to progress to the doctoral course can select either the "α" course that offers an integrated master-doctor course or the "π" course in which students work on multiple specialized fields to get double majors.

(1) α Course
This integrated master-doctor course offers consistent doctoral research guidance to develop highly creative individuals with profound knowledge in specialized domains. In order to avoid overlapping of master's and doctoral theses, a master's degree is conferred based on a specially assigned research report in place of a master's thesis (for students admitted in FY 2008 or later). Students are encouraged to graduate earlier than 2 years.

(2) π Course
This course offers research guidance in multiple specialized fields to help students become researchers with multiple specialties, flexible thinking, and a broad perspective to pursue interdisciplinary domains. Specifically, students propose original research topics at the beginning of doctoral research and receive research guidance from main supervisor that they select (different from those for master's research). The curricula are designed for students to acquire broad knowledge.

(3) σ Course
This course trains highly specialized professionals with broad expertise and methodologies in materials science. In the σ course, students (admitted in FY 2008 or later) can select thematic research topics in which they work on advanced assignments in place of a

master's thesis.

(3) i Course

This international course lectured all in English enables students to obtain all credits necessary for their master degree.

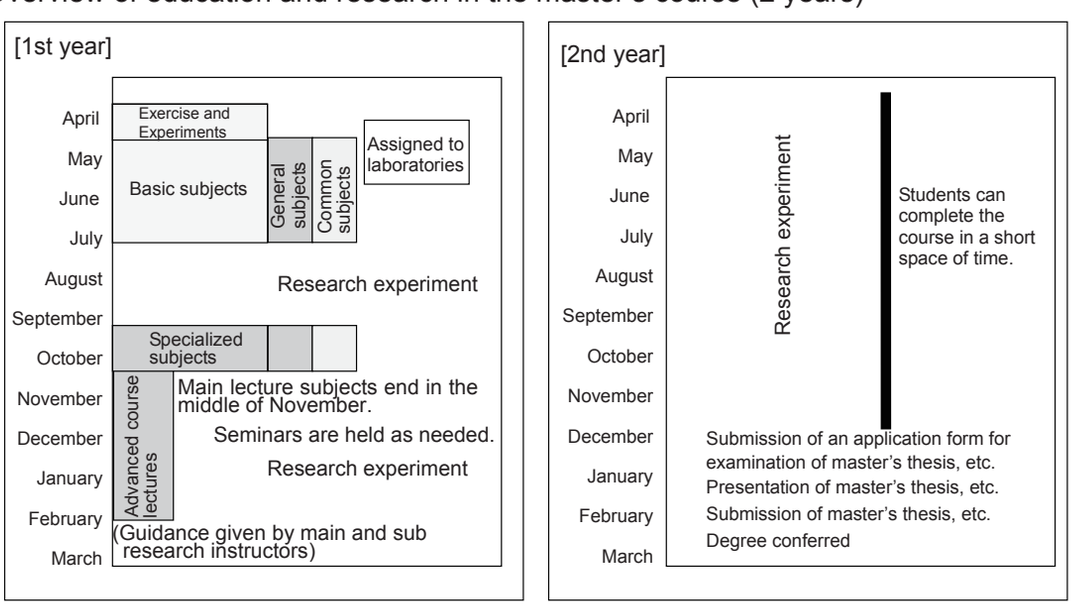
The education system will enrich students to become global leaders of the future.

1. Intensive class schedule

The class subjects are intensively organized in the spring semester from April toJuly. The figure below shows an overview of the educational and research programs. Main lectures given in the autumn semester include Materials Science Special I–IV (intensive lectures covering interdisciplinary fields in materials science) and Materials Science English IIA–Presentation, and Materials Science English IIIA–Discussion (for improving English skills). The schedule is arranged so that students can fully start to work on special thematic research and master's thesis research, etc. from August.

The class subjects for the i course are intensively organized in the autumn semester from October to February, so that students can start to work fully on their master's thesis research from March.

Overview of education and research in the master's course (2 years)



2. Basic subjects covering broad fields

Basic subjects are intended to cover extensive fields of materials science and help students from diverse backgrounds learn the basics in various fields (subjects related to physical properties, devices, and chemistry/chemical biology). Specifically, in Photonic Nanoscience (a required subject), professors and associate professors from all the laboratories of the Graduate School of Materials Science give lectures in April (immediately after admission) as an overview of the various research activities from their respective laboratories. Next, all the students are required to take Photonic Nanoscience

Core to acquire basic knowledge about photonic nanoscience in materials science. Lectures on Solid State Physics (a basic subject to help students understand the interactions between materials and photon), Physical Chemistry and Biochemistry (a basic subject that is essential for creating organic materials and biomaterials), and Advanced Materials Science (a subject to help students acquire knowledge necessary for pioneering advanced interdisciplinary domains in photonic nanoscience) are available in different levels (elementary and advanced) depending on the level of proficiency. Also available are Modern Quantum Mechanics (in solid-state science), Advanced Semiconductor Engineering, Advanced Optoelectronics, and Advanced Electronics Materials Engineering (which help students understand the basic mechanisms of devices) as well as Modern Organic Chemistry, Advanced Polymer Chemistry, Modern Inorganic Chemistry, and Advanced Biochemistry (for creating organic materials and biomaterials).
For the i course, all the students are required to take Photonic Nanoscience (i), in which professors and associate professors from all the laboratories of the Graduate School of Materials Science give lectures in October (immediately after admission) as an overview of the various research activities from their respective laboratories. Next, lectures on Photon and Condensed Matters (i) (a basic subject to help students understand the interactions between materials and photon) and Photon and Molecules (i) (a basic subject that is essential for creating organic materials and biomaterials) are available.

3. Specialized subjects based on basic subjects and Materials Science Special, a subject that covers interdisciplinary domains

Specialized subjects available from October are based on the knowledge acquired in basic subjects available until middle July. Students can deepen their knowledge in two advanced fields: physical properties/devices and chemistry/chemical biology. Materials Science Special, which is available in the autumn semester, consists of four lectures that are given by highly advanced researchers invited from outside NAIST. This intensive course covers the interdisciplinary fields of physical properties, devices, chemistry, and chemical biology.
For the i course, specialized subjects are available from the end of October to December. Students can deepen their knowledge in two advanced fields: physical properties/devices and chemistry/chemical biology. Materials Science Special (i) consists of two lectures that are given by highly advanced researchers invited from outside NAIST.

4. Improving international communication skills

International communication skills are essential for students who learn advanced science and technology. Materials Science English I–Writing (a required subject for master's course students), and Materials Science English IIA–Presentation and Materials Science English IIIA–Discussion (elective subjects) are taught by English specialists. Materials Science English I is taught in small classes from May to July. Students taking Materials Science English I are required to take the TOEIC IP Test immediately after admission and in autumn. TOEIC IP and other tests are used to check improvements in English proficiency. After completion of Materials Science English I, both Materials Science

English IIA and IIIA are available for students who wish to improve their presentation and discussion skills in English.
For the i course, Materials Science English I (i)–Writing (a required subject for master's course students), Materials Science English II (i)–Presentation, and Materials Science English III (i)–Discussion (elective subjects) are taught by English specialists. Students taking Materials Science English I (i) are required to take the TOEIC IP Test both before and after taking the classes.

5. An array of general and common subjects available focusing on the sociological aspects of materials science

Research in materials science is closely related to sociological aspects. With this in mind, students are required to take Technology and Professional Ethics (for learning about ethics that engineers must abide by) and Science & Technology Policy and Intellectual Property (for learning about (i) intellectual property framework and patents and (ii) the Japanese government's framework for implementing science and technology policy and the human resources required). In the spring semester, Global Entrepreneur I to V are available to help students learn how to build a business model when starting a business, among other topics.
For the i course, Technology and Professional Ethics (i) (for learning about ethics that engineers must abide by) and Intellectual Property Rights (i) (for learning about intellectual property framework and patents) are available.
Research Ethics Training Session for new students are available to foster the ethical thinking necessary for researchers and technicians. This session is mandatory for all new students and is also a requirement for completion, so please keep in mind.

6. Assignment to laboratories/master's thesis research, collaborative laboratories, short-term completion, multi-supervisor system, and course system

Assignment to laboratories is determined in early May after given an overview of researches at laboratories. Several surveys are conducted regarding the laboratories that students wish to join. If the number of applicants exceeds capacity, assignment is determined based on the interview at the time of the admission examination, TOEIC test results after admission, and the results of Photonic Nanoscience Core I and III, among others.

Special thematic research and master's thesis research start after assignment has been determined. Students assigned to collaborative laboratories may be required to conduct master's thesis research, etc. at partner institutions. These students can also use the space in collaborative laboratories and host laboratories in the graduate school. In-depth and multifaceted guidance is available under the multi-supervisor system consisting of a main and vice-supervisor. Students can receive advanced education and research guidance from various perspectives. Students who earn designated credits and achieve excellent research results can earn a master's degree in an enrollment period of less than two years.

Students who wish to progress to the doctoral course can select either α or π course. In the α course, intensive research guidance for completing the doctoral thesis is offered from the

beginning of the master's course. The α course aims to develop highly creative human resources who have profound knowledge in specialized fields. Students are encouraged to graduate earlier than 2 years. In the π course, research guidance is offered in multiple specialized fields to help students develop abilities to pioneer interdisciplinary research. For this reason, in the π course, research instructors are changed when students progress from the master's course to the doctoral course. For students who select the α or π course, a supervisory board consisting of the main and vice supervisors plus two or more faculty members is established to facilitate the process of earning a degree under a well-organized guidance framework. Students who wish to progress to the doctoral course are preferentially assigned to the laboratories.

The σ course is selected by master's course students who wish to become highly specialized professionals with broad expertise and methodologies in materials science. The σ course is designed to facilitate the process of earning a degree under a well-organized guidance framework consisting of a main and vice-supervisor.

Students of the i course are supposed to progress to the doctoral course and can select either α or π course in the doctoral course. However, students who don't wish to progress to the doctoral course can complete their study with a master's degree. Assignment to laboratories is determined upon admission

7. Research group syllabi

Respective research groups disclose their research guidance syllabi to enhance transparency of research guidance and ensure objective, rigorous, and smooth degree conferment. The research group syllabi define the educational framework, research and seminar policies, and targets set by respective groups, etc. The group syllabi have been improved based on discussions in the graduate school.

Doctoral course

The doctoral course aims to produce highly creative international researchers of the next generation in interdisciplinary domains of materials science (in industry, government, or academia) by providing students with opportunities to learn materials science deeply and broadly.

Notably, the curriculum is organized to help develop abilities to identify and solve problems (which are required of autonomous researchers) and acquire the following abilities.

(1) Abilities and profound knowledge required of highly creative researchers
(2) Abilities to promote research and develop interdisciplinary research
(3) Presentation skills
(4) International perspective and communication skills (including linguistic proficiency)
(5) Research management skills

To achieve these goals, the three courses below are offered:

(1) α Course
This integrated master-doctor course offers consistent doctoral research guidance to develop highly creative individuals who have profound knowledge in specialized domains. In order to avoid an overlapping of master's and doctoral theses, a master's degree is conferred based on a specially assigned research report in place of a master's thesis (for students admitted in FY 2008 or later). Students are encouraged to graduate earlier than 2 years.

(2) π Course
This course offers research guidance in multiple specialized fields to help students become researchers with multiple specialties, flexible thinking, and a broad perspective to pursue interdisciplinary fields. Specifically, students propose original research topics at the beginning of doctoral research and receive research guidance from main supervisor that they select (different from those for master's research). The curricula are designed for students to acquire broad knowledge.

(3) τ Course
This course targets researchers and engineers who are engaged in diverse research activities in industry, government, and academia. The objective is to produce highly creative researchers and engineers who can lead the development of science and technology by teaching advanced expertise in materials science and offering the most advanced research guidance. To facilitate the process of earning a degree, research guidance is given based on past research results.

In the doctoral course, students can acquire profound knowledge through discussions and lectures with faculty members who are highly advanced researchers. They also receive guidance at laboratories to which they are assigned, and work on extremely advanced research in materials science to prepare their doctoral thesis. As part of the research process, importance is attached to presentations about research results obtained. Notably, students can acquire practical English skills at the University of California, Davis in Practical English for Materials Science (a one-month program designed for students of the Graduate School of Materials Science, NAIST). When delivering presentations at international conferences, expenses for traveling outside Japan are subsidized. Students can receive individual guidance regarding presentation abstracts and presentations from English specialists. They can also receive guidance before contributing papers to scientific journals (with proofreading by English specialists). Materials Science English IIB–Presentation, Materials Science English IIIB–Discussion, and other international communication subjects are available to help develop students' communication skills in international joint research projects and international conferences. Students are also encouraged to take TOEIC IP tests. Students can also gain experience in education and research by assisting education and research as teaching assistants (TAs) and research assistants (RAs) during the enrollment period. Research guidance is given by a supervisory board consisting of the main supervisor plus four to five researchers in other fields. Thus,

students can receive advanced and multifaceted education/research guidance. Students of high caliber are encouraged to graduate earlier than 3 years.

1. Doctoral thesis research

In the doctoral course, students are expected to work on extremely advanced research and compile excellent research results in the form of a doctoral thesis. To this end, students are required to identify problems, organize a research plan, work on original research, propose solutions, and make evaluations based on analysis and discussion. It is also essential for students to study relevant research methods, objectively evaluate their own proposals and clarify the values and unique characteristics of their research results, and identify any remaining challenges. Research instructors and the supervisory board offer detailed research guidance from various aspects so that students can improve their abilities to promote advanced research and develop interdisciplinary research. Students are expected to present the results obtained via papers and international conferences so that they can enhance their presentation skills.

2. Supervisory board

Students have discussions with faculty members other than those of research groups from which students mainly receive guidance, to acquire broad and profound knowledge. The supervisory board provides students with the experience of having discussions from diverse perspectives, helps students improve their discussion skills, and offers research guidance with development of research in interdisciplinary domains in mind. In-depth discussions regarding research results and policies from various perspectives serve as preliminary examinations for degree conferment and facilitate the process of earning a degree.

The supervisory board consists of four to five faculty members including faculty members from different research groups and different research fields. Respective supervisors offer (i) regular research guidance to individual students and (ii) intensive guidance at midterm evaluation meetings. The details of guidance and evaluation results are compiled in supervisor reports (in the form of electronic data) and used as reference materials in degree examinations.

3. Introduction of subjects and credit-based system

The credit-based system was introduced to the doctoral course in FY 2008 to increase transparency in the process for completing the doctoral course and earning a degree. Students can smoothly acquire the advanced abilities required of next-generation researchers by earning 10 credits or more from international subjects (for enhancing international communication skills), interdisciplinary subjects (for deepening knowledge and enhancing research abilities in interdisciplinary domains), subjects for presenting research (for enhancing research management skills), interdisciplinary seminars (for enhancing abilities to have discussions with researchers in different fields and deliver presentations), and research promotion subjects (for enhancing abilities to promote

advanced research in materials science), among others. Arrangements are made so that students in the τ course can earn a degree while working.

4. Enhancing international communication skills

Various projects are underway to enhance international communication skills and thereby produce international researchers.

(1) Materials Science English IIB and IIIB–Presentation and Discussion skills

Students can improve their skills necessary for presenting research related to materials science and have conversations/discussions in English, and enhance their autonomous learning skills.

(2) Lectures in English

In Interdisciplinary Materials Science, lectures are given in English on research in advanced fields.

(3) Individual guidance given by foreign faculty members

Foreign faculty members help students improve their presentation skills in English. Students can receive guidance regarding papers to be contributed to international journals and presentations for international conferences. Students can also have their papers proofread by foreign faculty members.

(4) Practical English for Materials Science (a one-month course) at the University of California, Davis

This practical English training program at the University of California, Davis is specially designed for students of the Graduate School of Materials Science, NAIST. During this program, students stay with host families. Expenses are paid by the graduate school.

(5) Science Literacy (Advanced Course II) (a short-term overseas dispatch support program)

The graduate school supports students in attending international conferences, etc. and helps students deliver presentations about research results outside Japan, among other initiatives.

(6) International Internship (a mid-term overseas dispatch support program)

Students are dispatched to advanced research institutions outside Japan for a period of about two to three months. This program helps improve international communication skills by experiencing research outside Japan.

(7) International supervisor system

Under this system, distinguished researchers are invited from outside Japan. Students

receive peer reviews regarding research proposals and results, and can improve their international communication skills and discussion abilities.

(8) Support for hosting international seminars

The graduate school extends support in hosting international seminars based on proposals from students. Five or more researchers can be invited as speakers from outside Japan.

5. Competitive research sponsorship program

Researchers who will lead the future of science and technology are expected to have the necessary research management skills. Specifically, researchers are required to have the abilities to promote research (research planning, proposal, promotion, and report) and facilitate coordination of research activities from the viewpoint of ethics, compliance, intellectual property, and cooperation with communities, among others. Students can improve their research management skills by receiving in-depth research guidance from supervisors and by taking the initiative in planning, proposing, and administering research projects based on public invitation for research proposals under the competitive research sponsorship program. Students in the π course earn credits in Research Management Exercise B.

6. Research group syllabi

In the doctoral course, respective research groups disclose their research guidance syllabi to enhance transparency of research guidance and ensure objective, rigorous, and smooth degree conferment based on the syllabi.

NAIST Best Student Award and Best Student Award

A doctoral course student who conducts excellent doctoral thesis research is selected from among the students whose doctoral theses reach a certain standard. Both the NAIST Best Student Award and Best Student Award are presented in recognition of this accomplishment. The student also receives prize money and a commemorative gift.

Master's course students with excellent academic performance and research results are selected from among students whose special thematic research or master's thesis research, etc. reach a certain standard. Both the NAIST Best Student Award and Best Student Award are presented to honor their efforts. The student also receives prize money and a commemorative gift.

The NAIST Best Student Award is presented at the degree conferment ceremony from the president of the Foundation for Nara Institute of Science and Technology. The Best Student Award is commended by the NAIST president and presented by the dean.

The award-winning students in the doctoral and master's courses deliver oral presentations about the details of their research at a public research accomplishment report meeting around March. A special poster exhibition is also organized to publicize their accomplishments.

4. Completion requirements, etc. for the Graduate School of Materials Science

Completion Requirements

Master's Course

Students are required to be enrolled in the Master's Course for two years or more, earn 30 credits or more from the completion requirements below, receive necessary research guidance(including taking "Research Ethics Training Session" and passing the test), and pass the master's thesis examination and final examination. Students who produce excellent research results can complete the Master's Course with the enrollment period of one year or more.

Completion Requirements (for individuals admitted in academic year 2017)

Subject	Number of credits offered	Number of credits required													
		α course			π course			σ course						i course	
								Research thesis*1			Thematic research*1				
		Required	Required Elective	Elective	Required	Requeried Elective	Elective	Required	Required Elective	Elective	Required	Required Elective	Elective	Required	Elective
Common Subjects	10*2	1		2	1		2	1		2	1		2		6
General Subjects	8*2	3			3			3			3			2	
Basic Subjects	22	6	2	2	6	2	2	6	2	2	6	2	2	2	2
Specialized Subjects	13			4*3			4*3			4*3			6*3		5
Subtotal		20 or more									22 or more			17 or more	
Exercise and Experiments in Materials Science	2	2			2			2			2			3	
Seminar A	1	1			1									2	
Seminar B	2							2			2				
Interdisciplinary Seminar A	1				1									2	
Interdisciplinary Seminar B	2	2													
Research Thesis	6				6			6						6	
Special Research on Materials Science	5	5													
Research on Materials Science	4										4				
Subtotal		10			10			10			8			13	
Total		30 or more													

(*1) Students in the σ course are required to select either research thesis or thematic research based on consultation with the main research instructor.

(*2) Credits earned by taking Introduction to Materials Science (a common subject) and Mathematical Analyses for Materials Science, Materials Science English ⅡA, Materials Science English ⅢA, Global Entrepreneur Ⅰ, Global Entrepreneur Ⅱ, Global Entrepreneur Ⅲ, Global Entrepreneur Ⅳ, Global Entrepreneur Ⅴ, Prototyping Ⅰ, Prototyping Ⅱ(general subjects) do not count as credits toward the completion requirements.

(*3) Up to two credits earned by taking (i) subjects that are offered by the Graduate Schools of Information Science and Biological Sciences, and made available to students of other NAIST graduate schools and (ii) common subjects (except Introduction to Materials Science, Technology and Professional Ethics) may be counted as credits earned by taking special subjects that constitute the completion requirements, if the total amount of credits earned from these classes exceeds two credits.

Doctoral Course

In connection with Article 42 of the NAIST Regulations and the Degree Regulations

1. Completion requirements for the Doctoral Course

Students who want to earn a doctoral degree by completing the Doctoral Course are required to earn 10 credits or more from the completion requirements below, receive necessary research guidance(including taking "Research Ethics Training Session" and passing the test), submit a doctoral thesis, present the details of the thesis at a public hearing, and pass a thesis examination and final examination. In principle, students are required to be enrolled in the Doctoral Course for three years. Note that students who produce excellent research results can complete the Doctoral Course with the enrollment period of three years for the Master's Course and Doctoral Course combined

Completion Requirements (for individuals admitted in academic year 2017)

Subject	Number of credits offered	Number of credits required					
		α course		π course/DD course		τ course	
		Required	Elective	Required	Elective	Required	Elective
Internationalization subject	10		2		1		
Interdisciplinary subjects	1			1			
Research management	5	1		1		3	
Interdisciplinary seminars	3		1		1		1
General research	6	6		6		6	
Total		10		10		10	

2. When submitting a doctoral thesis, students are required to meet the conditions including but not limited to the following:

(1) An overall evaluation score of 4.0 or higher has been given by respective supervisors in the immediate midterm examination.
(2) The doctoral thesis research is characterized by originality, novelty or applicability.
(3) Either of the following conditions is met. Note that only (a) is applicable for short-term completion.

(a) At least part of the doctoral thesis has been published or will be published in the near future in the form of an original thesis, in which the individual submitting the doctoral thesis to a peer-reviewed English scientific journal serves as the first author.
(b) A student earns two credits by taking International Internship (a short-term program to study abroad for a period of two months or longer) and passes a doctoral thesis preliminary examination.

3. Conditions for awarding a doctoral degree

The thesis examination verifies that the student submitting the doctoral thesis has sufficient ability to work on research and development activities on an ongoing basis as an independent researcher or engineer.

4. Doctoral thesis

A doctoral thesis may be prepared either in English or Japanese. Note that students submitting a doctoral thesis in accordance with 2. (3) (b) are required to prepare a thesis in English.

Double-Doctoral Degree Program with the Graduate School of Materials Science

[Outline]

The 21st century has seen globalization rapidly changing industry and social activities. These changes further necessitate research leaders who in addition to managing technological advances, must be able to manage human resources across countries and borders in order to solve important issues on a global scale. In order to meet these challenges and systematically develop global research leaders with international collaborative research abilities, the Double-degree Program (DD Program) was developed by the Graduate School of Materials Science.

The Graduate School of Materials Science DD Program has been established with two partner universities: (1) Université Paul Sabatier, France (UPS) and (2) National Chiao Tung University, Taiwan (NCTU). These DD Programs are a part of the research development framework in which students from each respective university can obtain a Doctoral degree from both universities by receiving education and research supervision from both universities while enrolled in both. Please refer to the screening guide for these DD Programs in the URL below.

http://www.naist.jp/en/international_students/prospective_students/admission_information/double_degree/index.html

[Guidelines for DD Programs]

1. Nomination of students and selection method

- NAIST、UPS：Students who are allowed to enter PhD course
- NCTU：Students who are allowed to enter PhD course and also passed the Qualifying Exam
- An agreement between supervisors of both universities is necessary.

2. Deadlines for application

- Acceptance: December and June (the same dates for Screening of International Students by Special Recommendation)
- Dispatch: February and July

3. Selection method @NAIST：

- Acceptance: Screening of International Students by Special Recommendation
- Dispatch: Interview (English ability is judged by TOEIC score, etc.).

4. Number of students to be exchanged

- NAIST-UPS： maximum three students annually
- NAIST-NCTU：maximum two students for The College of Science, The College of Electrical and Computer Engineering, and The College of Engineering annually

5. Registration and tuition fee

- Students maintain their student status in their original graduate program while entering into

the program of the host institution.

- @NAIST：Start in April or October
- @ UPS：Most start in October but start in April is possible
- @ NCTU：Start in February or September

- The nominal duration of the doctoral studies consists of a total of 3 years in both institutions. The students' period of study must include a minimal stay at each institution of one academic year in total. However, this may be altered upon approval by both universities, and early graduation is possible.
- The DD student shall continue to pay tuition, and other necessary fees at the home university. The host university will waive fees for entrance examinations, admission, and tuition for the students from the other university.

6. Conferring grades and credits and requirements for completion of a program

- DD students shall take courses and fulfill the requirements for completion of the graduate program at both universities to obtain a degree from each respective institution.
- The home university shall evaluate grades and credits gained by DD students at the host university in accordance with the regulation of the home university.
- Conferring grades and credits, and requirements for completion of a program should be referred to the curriculum table.

7. System for research supervision and Screening of the academic thesis

- Both universities shall select a supervisor for the DD student upon consultation prior to accepting the student. Supervisors from both universities shall supervise the student jointly.
- The supervisor at the host university shall actively supervise the student regarding credit accumulation and research, and report on their status of enrollment and research progress to the home university.
- The two institutions will jointly organize a Thesis Committee to examine the thesis. The Thesis committee will be composed of a proportionally balanced number of academic representatives designated by the authorized persons of two institutions.

8. Other

- The host university shall make efforts to secure housing for the DD student.

Subject Registration, etc.

• Registration Method, etc.

1. Registration procedure

Students are required to develop subject registration plans based on full consultation with their research instructors, and to prepare and submit registration forms to the Administrative Office of the Graduate School of Materials Science by the specified deadline.

2. Report of absence from lectures

2.1 Process for reporting lecture absence for unavoidable reasons

If students cannot attend lectures due to unavoidable reasons including sickness, injury, mourning, and employment examinations (only for students with NAIST's recommendations), they are required to inform the head of their laboratory (other faculty members of the lab if the head is absent due to a business trip, etc.) (i) student ID number, (ii) name, (iii) e-mail address, and (iv) reason(s) for absence via e-mail, on or before the date on which such lectures are given. The faculty member who is informed of such absence is required to report the student's absence to the Chair of Eductional Affairs Committee in the case of general subjects by part-time instructors, or to the faculty members in charge in the case of other subjects (the director of host courses in the case of Materials Science Special I-IV). Students are deemed "absent" if they fail to report their absence.

Reports of absence (oral, written, e-mail) by students directly to the lecturers are not accepted.

Lecturers in charge of subjects take into consideration the reason(s) for the absence stated in the e-mail when determining the grade of such students. For students not yet assigned to a laboratory, please report any absence directly to the Chair of Eductional Affairs Committee. Also, if you are absent due to sickness or injury, please submit a medical certificate.

2.2 Process for reporting lecture absence for personal reasons

If a student is absent from three or more lectures in an eight-lecture subject (i.e., missing 30% or more lectures) due to personal reasons, the student's score for that subject will be zero. In this case, the student should cancel the subject registration. In the case of absence for personal reasons (e.g., seminar attendance, conference participation including cases where the student is presenting their own research), notification is not necessary; however, when absence is notified, the student or the head of the student's lab, should report the following information via email to GSMS Main Office Education Affairs Committee (ms-kyoumujimu@ms.naist.jp): (i) time, (ii) lecturers, (iii) student ID number, (iv) name, and (v) email address.

3. Treatment of credits earned prior to admission to NAIST

The Faculty Council of this graduate school can treat up to 10 credits that have been earned at non-NAIST graduate schools as those earned at this graduate school, if deemed educationally beneficial to do so. Students who apply for such treatment are required to apply to the Academic Affairs Section of the Educational Affairs Division with the following documents.

(1) Application form to treat credits that have been earned at non-NAIST graduate schools as those earned at this graduate school (The form is available at the Educational Affairs Division.)

(2) Certificate of credits earned/certificate of academic record issued by non-NAIST graduate schools at which credits have been earned

(3) Documents that show the details of lectures given in subjects whose credits should be treated as those earned at this graduate school (a copy of the syllabus, etc.)

* The schedule for application procedures, etc. will be notified via the bulletin board, etc. Please check the information carefully. For more information, please contact the Academic Affairs Section of the Educational Affairs Division.

4. Credit transfer program with other NAIST graduate schools

A credit transfer program is in place between this graduate school and the Graduate Schools of Information Science and Biological Sciences. Students who want to use the credit transfer program must carefully read the instructions below and follow the prescribed procedures. For more information, please contact the Academic Affairs Section of the Educational Affairs Division.

(1) Registration method, etc.

(i) Students who want to use the credit transfer program are required to submit a prescribed registration application form.

(ii) The following subjects are available via the credit transfer program.

Graduate school	Subject
Information Science	Basic subjects and special subjects
Biological Sciences	General subjects, basic subjects, and special subjects

(iii) Students who want to use the credit transfer program are required to select subjects to take by referring to the syllabus and class schedule in the Student Handbook issued by the Graduate Schools of Information Science and/or Biological Sciences, and obtain approval from their main research instructors and permission from faculty members in charge of the subjects that they want to take.

(iv) Students may not be given permission to take specific subjects due to reasons including class capacity at the Graduate Schools of Information Science and/or Biological Sciences.

(2) Credit transfer

Up to four credits earned by taking subjects at the Graduate Schools of Information Science and Biological Sciences may be counted as credits toward the completion requirements of special subjects.

(3) Timing of registration application

For more information about the procedures (including the timing of submitting registration application forms and offices to which application forms should be submitted), students will be notified via the bulletin board, etc. at a later date.

5. Credit transfer program with a non-NAIST graduate school

A credit transfer program is in place between this graduate school and the Graduate School of Humanities and Sciences, Nara Women's University (the Department of Residential Environment and Design, Department of Physics, and Department of Chemistry).

Students who want to use the credit transfer program must carefully read the instructions below and follow the prescribed procedures. For more information, please contact the Academic Affairs Section of the Educational Affairs Division.

(1) Registration method, etc.
(i) Students who want to use the credit transfer program are required to submit a prescribed registration application form and a statement of reasons.
(ii) For the Master's Course, the total number of credits shall be ten credits or less.
(iii) In principle, the scope of subject registration shall be lectures only, and shall not cover seminars, practical work, experiments, research, etc.
(iv) Students may not be given permission to take specific subjects due to reasons including class capacity at the Graduate School of Humanities and Sciences, Nara Women's University.
(2) Credit transfer
Credits earned at the Graduate School of Humanities and Sciences, Nara Women's University (the Department of Residential Environment and Design, Department of Physics, and Department of Chemistry) are counted as credits that constitute the completion requirements for this graduate school, as long as the Faculty Council of this graduate school recognizes that such credits constitute the completion requirements before students take such subjects.
(3) Acceptance period for a registration application form and a statement of reasons
The acceptance period differs depending on the graduate school department. Students will be notified via the bulletin board at a later date.
(4) Procedures for submitting a registration application form and a statement of reasons
(i) Registration application and reason statement forms are available from the Academic Affairs Section of the Educational Affairs Division.
(ii) Students who want to use the credit transfer program are required to select subjects to take by referring to the details of lectures and the class schedule, etc. at the Graduate School of Humanities and Sciences, Nara Women's University, obtain approval from their research instructors, and submit a registration application form and a statement of reasons to the Academic Affairs Section of the Educational Affairs Division.

6. Issuance of academic records

Students can confirm the subject registration status and academic performance by means of academic records which can be obtained from the automatic certificate issuing machine in the entrance lobby of the NAIST Library.

7. Research guidance offered at non-NAIST graduate schools, etc.

Students can receive necessary research guidance at non-NAIST graduate schools and research institutions, etc. (hereinafter referred to as "non-NAIST graduate schools, etc.") based on consultation with relevant non-NAIST graduate schools, etc. when it is deemed educationally beneficial to do so. The duration for which such research guidance is available is up to one year in total for the Master's Course and Doctoral Course, respectively. Permission may be given to extend the duration for the Doctoral Course. Students who want to receive research guidance at non-NAIST graduate schools, etc.

are required to consult with their research instructors in advance, and inform the Academic Affairs Section of the Educational Affairs Division at least two months before the month in which such students will start to receive guidance.

• Teaching certificate (specialized certificate)
Students who have obtained a junior high school teacher or high school teacher class 1 certificate (in science) (including those who have earned the credits necessary to apply for obtaining a certificate) are eligible to obtain a specialized certificate (in science) of the school type concerned, provided they have earned 24 credits in the following "subjects related to the field of specialization" at the time of completing the Master's Course at NAIST.

The Academic Affairs Section of the Educational Affairs Division is responsible for making applications collectively to the Nara Prefecture Board of Education. The Academic Affairs Section will check the application schedule in mid-October and inform students of the details (including procedures) via e-mail, etc. in January.

(Subjects related to the field of specialization)

Category	Subject name
Basic Subjects	Photonic nanoscience I、Photonic nanoscience II、Photonic nanoscience Core I 、Photonic nanoscience Core II、Photonic nanoscience Core III、Photonic nanoscience Core IV、Solid State Physics I、Solid State Physics II、Organic Chemistry I、Physical Chemistry and Biochemistry II、Advanced Materials Science I、Advanced Materials Science II、Advanced Materials Science III、Advanced Materials Science IV、Modern Quantum Mechanics、Advanced Semiconductor Engineering、Advanced Optoelectronics、Advanced Electronics Materials Engineering、Modern Organic Chemistry、Advanced Polymer Chemistry、Modern Inorganic Chemistry、Advanced Biochemistry
Specialized Subjects	Optical and Magnetic Properties of Matter Special、Electronic Properties and Atomic Structures of Solids and Surfaces Special、Photonics Special、Information Device Special、Molecular Photoscience Special、Advanced Organic Reactions and Stereochemistry Special、Biofunctional Materials Special、Biomaterials Science Special、Advanced Industrial Science and Technology Special、Materials Science Special I、Materials Science Special II、Materials Science Special III、Materials Science Special IV
Seminar Exercises	Experiments in Materials Science、Seminar A、Seminar B、Interdisciplinary Seminar A、Interdisciplinary Seminar B

Students are required to earn 24 credits by taking subjects shown above.

• Handling of classes when public transport services are suspended, etc.

1. Handling of classes when public transport services are suspended

Classes will be cancelled when the services of the Kintetsu lines (Keihanna, Nara, and Kyoto) and/or Nara Kotsu Bus lines (routes serving Gakken Kita-Ikoma Sta., Gakuenmae Sta., and Takanohara Sta.) (which are used by students to commute to the NAIST campus) are suspended due to a major disaster, accident, etc. The table below shows the handling of classes when public transport services are restored.

2. Handling of classes when a weather warning is issued

Classes will be cancelled when an Emergency Warning and a storm (or snowstorm) warning is announced in Ikoma City, Nara City and the area including those cities.

The table below shows the handling of classes when the warning is cancelled.

Status at 7:00 a.m./10:00 a.m.	Handling of classes
Public transport services are restored/the warning is cancelled at or before 7:00 a.m.	Classes are held for the whole day
Public transport services are restored/the warning is cancelled at or before 10:00 a.m.	Classes are held in the afternoon
Public transport services remain suspended/the warning remains in effect after 10:00 a.m.	Classes are cancelled for the whole day

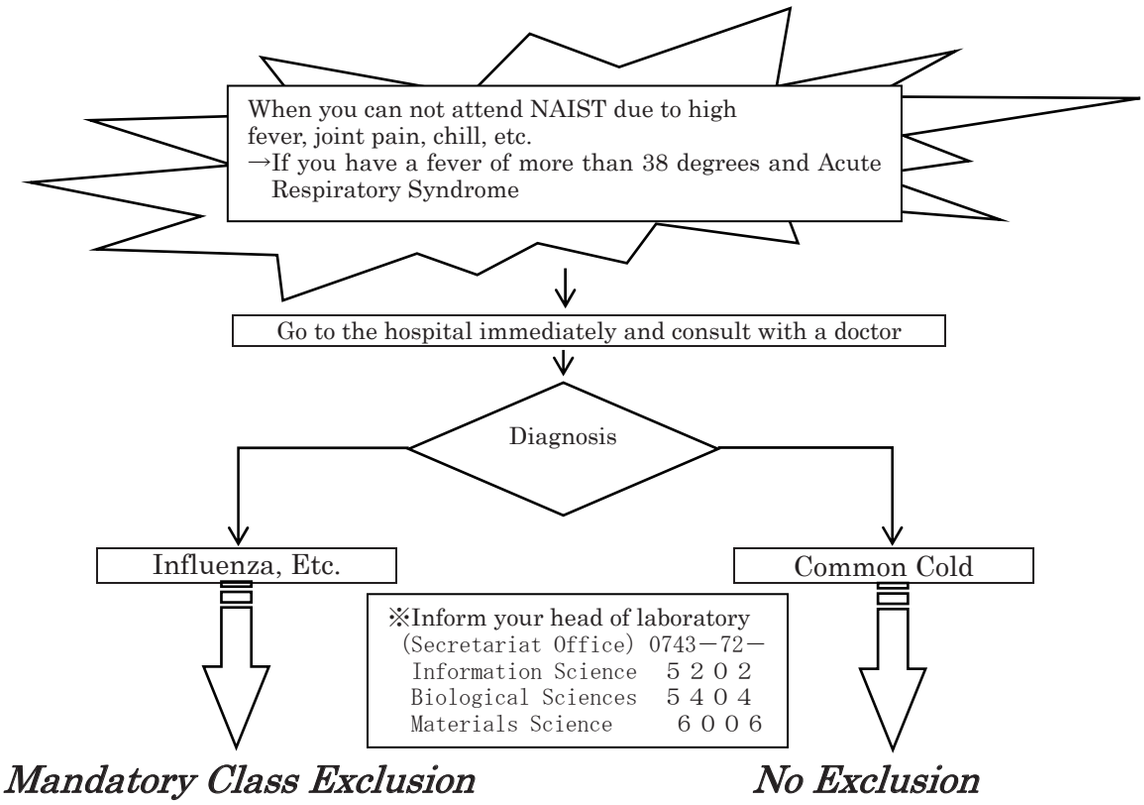
Note: Information on the TV, Internet, etc. is used to check if public transport services are suspended/restored or a warning is issued/cancelled.

What is an Emergency Warning?

The issuance of an Emergency Warning for an area indicates a level of exceptional risk of a magnitude observed only once every few decades. Residents should pay attention to their surroundings and relevant information such as municipal evacuation advisories and orders, and should take all steps necessary to protect life.

Mandatory Exclusion from Class Attendance for those with Infectious Diseases

If you feel you might have contracted an infectious disease, (influenza, etc.) please act according to the chart below;



(Article 19 of the School Health and Safety Act)

※If you are diagnosed with an infectious disease, mandatory class exclusion is immediately in effect and you are required to inform the head of your laboratory (or another faculty member of the lab if the head is absent) of the necessary information (name, student ID number, e-mail address, etc.).
The faculty member who is informed of such diagnosis, etc. is required to report the student's absence to the faculty/ staff involved with the student's studies/ research.

If you have any questions please consult Educational Affairs Committee of your course or the Health Care Center.

Note: When government policy declares a pandemic, pandemic measures take precedence.

＜For reference＞Period of class exclusion（Only common disease examples）

Name of diseases	Period of suspended
Influenza	5 days from the start of symptoms and 2 days from the decline of the fever
Whooping cough	Until the whooping cough has stopped or after finishing a 5 day antibacterial agent treatment
Measles	3 days from the decline of fever
Mumps	Until complete recover and 5 days after swelling of the Parotid gland、Glandula submandibularis and/or Glandula sublimgualis.has subsided
Rubella	Until the rash has completely disappeared

＊These periods are standards established by the School Health and Safety Act.
You should consult doctors on a case-by-case basis.

Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology

April 1, 2004
Regulation No. 22

Article 1 (Purpose)
These regulations stipulate matters necessary for registration by students of the Graduate School of Materials Science in accordance with Article 34 of the Regulations of Nara Institute of Science and Technology (2004 Regulations No. 1) ("NAIST Regulations").

Article 2 (Research instructors)
1. Two or more research instructors of different courses, etc. shall be designated for each student to provide guidance on choosing subjects and preparing a degree thesis, etc. (hereinafter referred to as "research guidance").
2. One of such research instructors shall be designated as the main research instructor.
3. Research instructors may be changed if needed in the course of studying or research guidance.

Article 3 (Research guidance)
The details of research guidance shall be defined for respective students.

Article 4 (Subjects and number of credits)
1. The subjects, number of credits, and registration methods for the Master's Course shall be as shown in Schedule 1 and Schedule 2.
2. The subjects, number of credits, and registration methods for the Doctoral Course shall be as shown in Schedule 3.

Article 5 (Registration procedures)
1. Students shall be required to submit the prescribed registration form, under the guidance offered by the main research instructor, to the dean of the graduate school by the specified date.
2. Students who want to change their chosen subjects written on the registration form shall report the changes to the dean of the graduate school, with the approval of the faculty member in charge of such subjects and the main research instructor.

Article 6 (Awarding of credits)
1. Credits shall be awarded by means of an examination or a research report. Credits may be awarded based on an evaluation of day-to-day study activities, instead of such examination.
2. Academic performance based on an examination or a research report shall be evaluated by points (full score: 100 points); 60 points or more is a "pass", and 59 points or less is a "fail". For evaluation purposes, academic performance may be represented as "Excellent," "Good," "Fair," and "Fail" in accordance with the categories below.

(1) 80 points or more	Excellent
(2) 70–79 points	Good
(3) 60–69 points	Fair
(4) 59 points or less	Fail

3. In the event that it is difficult to evaluate academic performance based on points as described in the preceding paragraph, “pass” or “fail” may be used instead of such points.
4. Prescribed credits shall be awarded to students whose academic performance is “pass” in accordance with the two preceding paragraphs.
5. Subjects whose credits have been earned cannot be taken again.

Article 7 (Approval of research guidance)
Research guidance shall be approved by the main research instructor and reported to the dean of the graduate school.

Article 8 (Theme of the degree thesis)
Students shall be required to report the theme of their degree thesis by the specified date, with the approval of the main research instructor.

Article 9 (Submission of the degree thesis)
1. Students are required to submit a degree thesis by the specified date, with the approval of the main research instructor.
2. A degree thesis can be submitted by students who (i) have earned or who are expected to earn credits necessary for completion of the course and (ii) have completed the necessary research guidance offered by research instructors.

Article 10 (Disqualification of credits for students who have been expelled due to unpaid tuition)
Credits accrued during the period of unpaid tuition will be disqualified when the student has been expelled from school, pursuant to Article 53-2 (4) of Regulation.

Article 11 (Miscellaneous provision)
Other matters relating to registration by students shall be stipulated separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2004.
(Transitional measures)
2. For students who were admitted in academic year 2003 or earlier (hereinafter referred to as “enrolled students”), the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall remain in effect even after these Regulations come into effect. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

(an omission)

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2012.
(Transitional measures)
2. For students who were admitted in academic year 2011 or earlier (hereinafter referred to as "enrolled students"), the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2013.
(Transitional measures)
2. For students who were admitted in academic year 2012 or earlier (hereinafter referred to as "enrolled students"), the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2014.
(Transitional measures)
2. For students who were admitted in academic year 2013 or earlier (hereinafter referred to as "enrolled students") with regard to subjects, number of credits, and registration, the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision notwithstanding the provisions of appended Schedule 1 and 2. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2015.
(Transitional measures)
2. For students who were admitted in academic year 2014 or earlier (hereinafter referred to as "enrolled students") with regard to subjects, number of credits, and registration, the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision notwithstanding the provisions of appended Schedule 1 and 2. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2016.
(Transitional measures)
2. For students who were admitted in academic year 2015 or earlier (hereinafter referred to as "enrolled students") with regard to subjects, number of credits, and registration, the former Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision notwithstanding the provisions of appended Schedule 1, 2 and 3. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2017.
(Transitional measures)
2. For students who were admitted in academic year 2016 or earlier (hereinafter referred to as "enrolled students") with regard to

subjects, number of credits, and registration, the former Registration Regulations for the Graduate School of Information Science at the Nara Institute of Science and Technology shall supersede these Regulations after revision notwithstanding the provisions of appended Schedule 1 and 2. In the event that enrolled students take subjects within the scope of these Regulations, such subjects shall be deemed to be replaced with former subjects as set forth separately.

Schedule 1 (supplement to Article 4, Paragraph 1)

Curriculum table of the Graduate School of Materials Science (Master's Course)

(1) Subject name, etc.

Category	Subject name	Subject Number	Number of credits	α course		π course		σ course				Remarks
								Research thesis		Thematic research		
				Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	
Common Subjects	Computer System	000101	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
	Algorithm	000102	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
	Introduction to Biological Science	000202	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
	Introduction to Materials Science	000301	1	△	3	△	3	△	3	△	3	Common Subjects for All Graduate Schools
	Perspectives on Science and Technology	000201	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
	Philosophy of Science	000103	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
	Technology and Professional Ethics	000302	1	◎		◎		◎		◎		Common Subjects for All Graduate Schools
	Science Communication	000203	1	○, (＊)		○, (＊)		○, (＊)		○, (＊)		Common Subjects for All Graduate Schools
General Subjects	Mathematical Analyses for Materials Science	311001	1	△		△		△		△		
	Materials Science English Ⅰ	311002	1	◎		◎		◎		◎		If students have received credit for Material Science English ⅡA or Material Science English ⅢA (master's program),they may not earn credits in the respective Material Science English ⅡB or Material Science English ⅢB (doctoral program).
	Materials Science English ⅡA	312003	1	△		△		△		△		
	Materials Science English ⅢA	313004	1	△		△		△		△		
	Science & Technology Policy and Intellectual Property	310005	1	◎	3	◎	3	◎	3	◎	3	
	Science Literacy	310006	1	◎		◎		◎		◎		
	Global Entrepreneur Ⅰ	111011	1	△		△		△		△		Subject in Information Science
	Global Entrepreneur Ⅱ	111012	1	△		△		△		△		Subject in Information Science
	Global Entrepreneur Ⅲ	112013	1	△		△		△		△		Subject in Information Science
	Global Entrepreneur Ⅳ	112014	1	△		△		△		△		Subject in Information Science
	Global Entrepreneur V	112015	1	△		△		△		△		Subject in Information Science
Basic Subjects	Opto-Nano Science Ⅰ	320001	1	◎		◎		◎		◎		
	Opto-Nano Science Ⅱ	320002	1	◎		◎		◎		◎		
	Opto-Nano Science Core Ⅰ	321103	1	◎		◎		◎		◎		
	Opto-Nano Science Core Ⅱ	321104	1	◎		◎		◎		◎		
	Opto-Nano Science Core Ⅲ	321305	1	◎		◎		◎		◎		
	Opto-Nano Science Core Ⅳ	321306	1	◎		◎		◎		◎		
	Solid State Physics Ⅰ	321107	1					□		□		
	Solid State Physics Ⅱ	321108	1					□		□		
	Organic Chemistry Ⅰ	321309	1					□		□		
	Physical Chemistry and BiochemistryⅡ	321310	1		10		10	□	10	□	10	
	Advanced Materials Science Ⅰ	321111	1	□		□						Students are required to earn two credits, respectively, by taking the required elective subjects in the basic subjects.
	Advanced Materials Science Ⅱ	321312	1	□		□						
	Advanced Materials Science Ⅲ	321113	1	□		□						
	Advanced Materials Science Ⅳ	321314	1	□		□						
	Modern Quantum Mechanics	321115	1	○		○		○		○		
	Advanced Semiconductor Engineering	321216	1	○		○		○		○		
	Advanced Optoelectronics	321217	1	○		○		○		○		
	Advanced Electronics Materials Engineering	321218	1	○		○		○		○		
	Modern Organic Chemistry	321319	1	○		○		○		○		
	Advanced Polymer Chemistry	321320	1	○		○		○		○		
	Modern Inorganic Chemistry	321321	1	○		○		○		○		
	Advanced Biochemistry	321622	1	○		○		○		○		

Category	Subject name	Subject Number	Number of credits	α course		π course		σ course				Remarks
								Research thesis		Thematic research		
				Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	
Specialized Subjects	Optical and Magnetic Properties of Matter Special	332101	1	○		○		○		○		
	Electronic Properties and Atomic Structures of Solids and Surfaces Special	332102	1	○		○		○		○		
	Photonics Special	332203	1	○		○		○		○		
	Information Device Special	332204	1	○		○		○		○		
	Molecular Photoscience Special	332305	1	○		○		○		○		
	Advanced Organic Reactions and Stereochemistry Special	332306	1	○	4	○	4	○	4	○	6	
	Biofunctional Materials Special	332607	1	○		○		○		○		
	Biomaterials Science Special	332608	1	○		○		○		○		
	Advanced Industrial Science and Technology Special	332009	1	○		○		○		○		
	Materials Science Special Ⅰ	332110	1	○		○		○		○		
	Materials Science Special Ⅱ	332211	1	○		○		○		○		
	Materials Science Special Ⅲ	332312	1	○		○		○		○		
	Materials Science Special Ⅳ	332613	1	○		○		○		○		
Experiments in Materials Science		340001	2	◎	2	◎	2	◎	2	◎	2	
Seminar A		340002	1	◎		◎						
Seminar B		340003	2		3		2	◎	2	◎	2	
Interdisciplinary Seminar A		340004	1			◎						
Interdisciplinary Seminar B		340005	2	◎								
Research Thesis		350001	6			◎		◎				
Specialized Research on Materials Science		350002	5	◎	5		6		6		4	
Research on Materials Science		350003	4							◎		
Number of credits required for completion					30		30		30		30	

1. In the "Required/elective" column,◎, □, and ○ represent required subjects, required elective subjects, and elective subjects, respectively.
2. In the "Required/elective" column, subjects marked△ do not count as credits toward the completion requirements.

(2) Registration requirements

A. Students are required to earn 30 credits or more in total as shown in the table above.

B. Students are required to select the α course, π course, or σ course under the guidance of Educational Affairs Committee

C. Students who select the σ course are required to select either research thesis or thematic research based on consultation with the main research instructor.

D. Students are required to take required elective subjects in the basic subjects designated by the main research instructor.

E. If students change the course between the α · π course and the σ course, the required elective subjects in the Basic Subjects the student took before changing can be regarded as credits earned by taking them in the changed cours

F. In accordance with Article 37 of the NAIST Regulations, up to two credits in total earned by taking (i) subjects offered by other NAIST graduate schools and (ii) (*)-marked common subjects may be counted as credits earned by taking special subjects that constitute the completion requirements, if the total amount of credits earned from these classes exceeds two credits.

(3) Numbering Information

Subject numbers consist of 6-digit numbers based on levels, difficulties, and other elements of courses. Please review the following information carefully before you register for courses.

First digit: The first digit in the 6-digit numbers indicates categories of common subjects or subjects offered by each Graduate School:

0XXXXX = Common Subjects for All Graduate Schools
1XXXXX = Subjects offered by the Graduate School of Information Science
2XXXXX = Subjects offered by the Graduate School of Biological Sciences
3XXXXX = Subjects offered by the Graduate School of Materials Science

Second digit : The second digit in the 6-digit numbers indicates levels of subjects:

X**0**XXXX = Common subjects［For master's course］
X**1**XXXX = General subjects［For master's course］
X**2**XXXX = Basic subjects［For master's course］
X**3**XXXX = Specialized subjects［For master's course］
X**4**XXXX = Advanced topics (Laboratory Activities) / Seminar［For master's course］
X**5**XXXX = Thesis / Specialized research / Research［For master's course］
X**6**XXXX = Doctoral subjects (Except below doctoral subject)［For doctoral course］
X**7**XXXX = Dissertation / Research［For doctoral course］

Third digit : The third digit in the 6-digit numbers indicates difficulties of subjects:

XX**0**XXX = No category
XX**1**XXX = Basic
XX**2**XXX = Intermediate
XX**3**XXX = Advanced

Fourth digit: The fourth digit in the 6-digit numbers indicates a field code of the lecture:

XXX**1**XX = physics, XXX**2**XX = electronics & devices, XXX**3**XX = chemistry, XXX**4**XX = biology (animals), XXX**5**XX = biology (plants), XXX**6**XX = biology (others), XXX**7**XX = informatics (mathmathics), XXX**8**XX = informatics (language), XXX**9**XX = informatics (programming), XXX**0**XX = others

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers in each category indicated by the second digit:

XXXX**01** ~ XXXX**50** = general course, XXXX**51** ~ XXXX **99** = international course

Regarding the fourth to sixth digits in the 6-digit numbers of common subjects or subjects offered by other Graduate Schools refer to the following.

i) For common subjects with the first digit of "0", please refer to the following guideline.

Fourth digit: The fourth digit in the 6-digit numbers indicates categories of subjects offered by each Graduate School:

XXX**1**XX = Subjects offered by the Graduate School of Information Science
XXX**2**XX = Subjects offered by the Graduate School of Biological Sciences
XXX**3**XX = Subjects offered by the Graduate School of Materials Science

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers assigned by each Graduate School.

XXXX**XX** = Serial numbers (ranging from 01 to 99) assigned by each Graduate School

ii) For subjects offered by other Graduate Schools with the first digit of "1 or 2", please refer to other Graduate Schools guideline.

Schedule 2 (supplement to Article 4, Paragraph 1)

Curriculum table of the Graduate School of Materials Science (Master's Course: i course)

(1) Subject name, etc.

Category	Subject name	Subject Number	Number of credits	i course		Remarks
				Required/ elective	Number of credits required for completion	
Common Subjects	Technology and Professional Ethics (i)	000105	1	○	8	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅰ (i)	000303	2	○		Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅱ (1) (i)	000204	1	○		Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅱ (2) (i)	000205	1	○		Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅲ (1) (i)	000206	1	○		Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅲ (2) (i)	000207	1	○		Common Subjects for All Graduate Schools
	Japanese Culture (i)	000105	2	○		Common Subjects for All Graduate Schools
General Subjects	Mathematical Analysis for Materials Science (i)	311051	1	○		
	Materials Science English Ⅰ (i)	311052	1	◎		
	Materials Science English Ⅱ (i)	312053	1	○		
	Materials Science English Ⅲ (i)	313054	1	○		
	Science Literacy (i)	310055	1	◎		
	Intellectual Property Rights (i)	110010	1	○		"Intellectual Property Rights" provided by Information Science
	Intercultural Communication (i)	110009	1	○		"Intercultural Communication" provided by Information Science
Basic Subjects	Photonic Nanoscience Ⅰ (i)	320051	1	◎	4	
	Photonic Nanoscience Ⅱ (i)	320052	1	◎		
	Photon and Condensed Matters Ⅰ (i)	321153	1	○		
	Photon and Condensed Matters Ⅱ (i)	321154	1	○		
	Photon and Molecules Ⅰ (i)	321355	1	○		
	Photon and Molecules Ⅱ (i)	321356	1	○		
Specialized Subjects	Quantum Molecular Science (i)	332151	1	○	5	
	Surface Science (i)	332152	1	○		
	Advanced Photonic Devices (i)	332253	1	○		
	Information Device Science (i)	332254	1	○		
	Technology for Advanced Measurement (i)	332255	1	○		
	Electronic and Magnetic Structure (i)	332156	1	○		
	Synthetic Organic Chemistry (i)	332357	1	○		
	Biomolecular Chemistry (i)	332658	1	○		
	Advanced Biomaterials (i)	332659	1	○		
	Photochemical Materials (i)	332360	1	○		
	Organic Functional Materials (i)	332361	1	○		
	Advanced Polymers and Molecular Assemblies (i)	332362	1	○		
	Materials Science Special Ⅰ (i)	332063	1	○		
	Materials Science Special Ⅱ (i)	332064	1	○		
Experiments in Materials Science (i)		340051	3	◎	3	
Seminar (i)		340052	2	◎	2	
Interdisciplinary Seminar (i)		340053	2	◎	2	
Research Thesis (i)		350051	6	◎	6	
Number of credits required for completion					30	

In the "Required/elective" column, ◎ and ○ represent required subjects and elective subjects, respectively.

(2) How to read the subject numbers

Subject numbers consist of 6-digit numbers based on levels, difficulties, and other elements of courses. Please review the following information carefully before you register for courses.

First digit : The first digit in the 6-digit numbers indicates categories of common subjects or subjects offered by each Graduate School:

0XXXXX = Common Subjects for All Graduate Schools
1XXXXX = Subjects offered by the Graduate School of Information Science
2XXXXX = Subjects offered by the Graduate School of Biological Sciences
3XXXXX = Subjects offered by the Graduate School of Materials Science

Second digit : The second digit in the 6-digit numbers indicates levels of subject

X**0**XXXX = Common subjects［For master's course］
X**1**XXXX = General subjects［For master's course］
X**2**XXXX = Basic subjects［For master's course］
X**3**XXXX = Specialized subjects［For master's course］
X**4**XXXX = Advanced topics (Laboratory Activities) / Seminar［For master's course］
X**5**XXXX = Thesis / Specialized research / Research［For master's course］
X**6**XXXX = Doctoral subjects (Except below doctoral subject)［For doctoral course］
X**7**XXXX = Dissertation / Research［For doctoral course］

Third digit : The third digit in the 6-digit numbers indicates difficulties of subjects:

XX**0**XXX = No category
XX**1**XXX = Basic
XX**2**XXX = Intermediate
XX**3**XXX = Advanced

Fourth digit : The fourth digit in the 6-digit numbers indicates a field code of the lecture:

XXX**1**XX = physics, XXX**2**XX = electronics & devices, XXX**3**XX = chemistry, XXX**4**XX = biology (animals), XXX**5**XX = biology (plants), XXX**6**XX = biology (others), XXX**7**XX = informatics (mathmathics), XXX**8**XX = informatics (language), XXX**9**XX = informatics (programming), XXX**0**XX = others

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers in each category indicated by the second digit:

XXXX**01** ~ XXXX**50** = general course, XXXX**51** ~ XXXX**99** = international course

Regarding the fourth to sixth digits in the 6-digit numbers of common subjects or subjects offered by other Graduate Schools refer to the following.

i) For common subjects with the first digit of "0", please refer to the following guideline.

Fourth digit : The fourth digit in the 6-digit numbers indicates categories of subjects offered by each Graduate School:

XXX**1**XX = Subjects offered by the Graduate School of Information Science
XXX**2**XX = Subjects offered by the Graduate School of Biological Sciences
XXX**3**XX = Subjects offered by the Graduate School of Materials Science

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers assigned by each Graduate School.

XXXX**XX** = Serial numbers (ranging from 01 to 99) assigned by each Graduate School

ii) For subjects offered by other Graduate Schools with the first digit of "1 or 2", please refer to other Graduate Schools guideline.

Schedule 3 (supplement to Article 4, Paragraph 2)

Curriculum table of the Graduate School of Materials Science (Doctoral Course)

(1) Subject name, etc.

Category	Subject name	Subject Number	Number of credits	α course		π course		τ course		DD course		Remarks
				Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	Required/ elective	Number of credits required for completion	
Internationalization subjects	Materials Science English ⅡB	362001	1	○	2	○	1			○	1	If students have received credit for Material Science English ⅡA or Material Science English ⅢA (master's program), they may not earn credits in the respective Material Science English ⅡB or Material Science English ⅢB.
	Materials Science English ⅢB	363002	1	○		○				○		
	Practical English for Materials Science	363003	2	○		○				○		
	Science Literacy (Advanced Course Ⅰ)	360004	1	○		○				○		
	Science Literacy (Advanced Course Ⅱ)	360005	1	○		○				○		
	International Internship	360006	2	○		○				○		
	Interdisciplinary Internship	360007	1	○		○				○		
	Photonic Nanoscience Speical	360008	1	○		○				○		
Interdisciplinary subject	Interdisciplinary Materials Science	360009	1			◎	1			◎	1	Students in DD course are able to earn a credit of Interdisciplinary Materials Science when the students have earned credits of subject held in the partner university, which can be certified as an interdisciplinary special subject.
Research management	Research Management Exercise A	370001	1	◎	1		1		3		1	
	Research Management Exercise B	370002	1			◎				◎		
	Research Management Exercise C	370003	1					◎				
	Exercise in Advanced Materials Science	370004	2					◎				
Interdisciplinary seminars	Seminar for Interdisciplinary Materials Science A	370005	1	○	1	○	1	○	1	○	1	
	Seminar for Interdisciplinary Materials Science B	370006	1	○		○		○		○		
	Seminar for Interdisciplinary Materials Science C	370007	1	○		○		○		○		
General research	Advanced Materials Science	370008	6	◎	6	◎	6	◎	6	◎	6	
Number of credits required for completion					10		10		10		10	
In the "Required/elective" column, ◎ and ○ represent required subjects and elective subjects, respectively.												

(2) Registration requirements

A. Students are required to earn 10 credits or more in total as shown in the table above.

B. Students who are admitted to NAIST into the Doctoral Course (i.e. not α course) are required to select the π course or the τ course.

(3) Numbering Information

Subject numbers consist of 6-digit numbers based on levels, difficulties, and other elements of courses. Please review the following information carefully before you register for courses.

First digit : The first digit in the 6-digit numbers indicates categories of common subjects or subjects offered by each Graduate School:

0XXXXX = Common Subjects for All Graduate Schools
1XXXXX = Subjects offered by the Graduate School of Information Science
2XXXXX = Subjects offered by the Graduate School of Biological Sciences
3XXXXX = Subjects offered by the Graduate School of Materials Science

Second digit : The second digit in the 6-digit numbers indicates levels of subjects:
X**0**XXXX = Common subjects［For master's course］
X**1**XXXX = General subjects［For master's course］
X**2**XXXX = Basic subjects［For master's course］
X**3**XXXX = Specialized subjects［For master's course］
X**4**XXXX = Advanced topics (Laboratory Activities) / Seminar［For master's course］
X**5**XXXX = Thesis / Specialized research / Research［For master's course］
X**6**XXXX = Doctoral subjects (Except below doctoral subject)［For doctoral course］
X**7**XXXX = Dissertation / Research［For doctoral course］
Third digit : The third digit in the 6-digit numbers indicates difficulties of subjects:
XX**0**XXX = No category
XX**1**XXX = Basic
XX**2**XXX = Intermediate
XX**3**XXX = Advanced
Fourth digit : The fourth digit in the 6-digit numbers indicates a field code of the lecture:
XXX**1**XX = physics, XXX**2**XX = electronics & devices, XXX**3**XX = chemistry, XXX**4**XX = biology (animals), XXX**5**XX = biology (plants), XXX**6**XX = biology (others), XXX**7**XX = informatics (mathmathics), XXX**8**XX = informatics (language), XXX**9**XX = informatics (programming), XXX**0**XX = others
Fifth and Sixth digits : The fifth and sixth digits in the 6-digit numbers indicate serial numbers in each category indicated by the second digit:
XXXX**XX** = serial numbers ranging from 01 to 99

Regarding the fourth to sixth digits in the 6-digit numbers of common subjects or subjects offered by other Graduate Schools refer to the following.

i) For common subjects with the first digit of "0", please refer to the following guideline.

Fourth digit : The fourth digit in the 6-digit numbers indicates categories of subjects offered by each Graduate School:
XXX**1**XX = Subjects offered by the Graduate School of Information Science
XXX**2**XX = Subjects offered by the Graduate School of Biological Sciences
XXX**3**XX = Subjects offered by the Graduate School of Materials Science
Fifth and Sixth digits : The fifth and sixth digits in the 6-digit numbers indicate serial numbers assigned by each Graduate School.
XXXX**XX** = Serial numbers (ranging from 01 to 99) assigned by each Graduate School

ii) For subjects offered by other Graduate Schools with the first digit of "1 or 2", please refer to other Graduate Schools guideline.

5. Degree examination criteria, etc.

Master's Course

Respective examination members make an overall evaluation about (i) the details of the master's thesis, special thematic research or thematic research, (ii) presentation, and (iii) Q&A. Each of these three items is graded on a score of 100. The master's thesis, etc. is deemed to have passed the examination if respective examination members give an evaluation score of 60 points or higher for all of the master's thesis (special thematic research report or thematic research report), presentation, and Q&A. Specifically, the examination checks the following items.

Items checked in the master's thesis examination

- Students fully understand the research background and objectives.
- Students have a well-organized knowledge base about the research project.
- Students have closely examined the research plans and research methods.
- Experiment data and theoretical calculation results have been properly organized and analyzed.
- Students have reached a conclusion through a logical process based on obtained results; students have logically developed hypotheses.
- References are appropriate.
- The thesis and oral presentation are organized logically and clearly.

Items checked in the special thematic research examination

- Students fully understand the research background and objectives.
- Students have a well-organized knowledge base about the research project.
- Students have closely examined the research plans and research methods.
- Experiment data and theoretical calculation results have been properly organized and analyzed.
- Students have reached a conclusion through a logical process based on obtained results; students have logically developed hypotheses.
- The future development vision is clear and reasonable.
- References are appropriate.
- The thesis and oral presentation are organized logically and clearly.

Items checked in the thematic research examination

- Students fully understand the research background and objectives.
- Students have a well-organized knowledge base about the research project.
- Students have closely examined the research plans and research methods.
- (i) Experiment data and (ii) theoretical calculation or investigation results have been properly organized and analyzed.
- The future vision is described appropriately.
- References are appropriate.

- The thesis and oral presentation are organized logically and clearly.

Master's Thesis, etc. Examination Procedures and A Guide to Preparing a Master's Thesis, Special Thematic Research Report, or Thematic Research Report and forms (e.g., application forms for thesis examination) are available on the graduate school website.

Doctoral Course

In the midterm examination that is indicated in the Doctoral Course completion requirements, supervisors evaluate the achievement levels in the following aspects:

(1) Competence and deep knowledge required for highly creative researchers

(2) Abilities to promote, integrate, and develop research activities

(3) Abilities to deliver presentations

(4) International attitude (including linguistic proficiency) and communication abilities

(5) Abilities to manage research activities

The doctoral thesis examination covers (i) details of the doctoral thesis, (ii) students' attitude to science, and (iii) logicality of approaches, in addition to the seven items to be checked in the master's thesis examination.

- Students fully understand the research background and objectives.
- Students have a well-organized knowledge base about the research project.
- Students have closely examined the research plans and research methods.
- Experiment data and theoretical calculation results have been properly organized and analyzed.
- Students have reached the conclusion through a logical process based on obtained results; students have logically developed hypotheses.
- References are appropriate.
- The thesis and oral presentation are organized logically and clearly.

A Guide to Preparing a Doctoral Thesis is available on the graduate school website.

Degree Regulations of Nara Institute of Science and Technology

April 1, 2004

Regulations No. 19

Article 1 (Purpose)

The purpose of these Regulations is to stipulate matters relating to conferral of degrees by the Nara Institute of Science and Technology ("NAIST") pursuant to Article 44-3 of the Regulations of the Nara Institute of Science and Technology (2004 Regulations No. 1) ("NAIST Regulations").

Article 2 (Degree types and majors)

1. Degrees conferred by NAIST shall be master's degrees and doctoral degrees.
2. The name of the Graduate School and the major shown in the following table shall be specified in the degree certificate.

Graduate School	Major
Information Science	Science or Engineering
Biological Sciences	Biological Sciences
Materials Science	Science or Engineering

Article 3 (Degree requirements)

1. A master's degree shall be conferred to students who have completed the Master's Course at NAIST.
2. A doctoral degree shall be conferred to students who have completed the Doctoral Course at NAIST.
3. In addition, a doctoral degree may be conferred to individuals who have passed the doctoral thesis examination and been recognized as having academic ability equivalent to or greater than that of a student who has completed the Doctoral Course at NAIST (individuals who have passed the "Examination of Academic Ability").

Article 4 (Submission of thesis)

1. To complete the Master's Course, students shall submit a master's thesis together with the

prescribed application form for thesis examination to the Dean of the relevant Graduate School and take the final examination.

2. Examination of research results on specified themes may be conducted in place of the master's thesis examination specified in the foregoing subsection.
3. To complete the Doctoral Course, students shall submit a doctoral thesis together with the prescribed application form for thesis examination, list of related papers, abstract of the thesis and curriculum vitae to the Dean of the relevant Graduate School and take the final examination.
4. To receive a doctoral degree pursuant to the provision of subsection 3 of Article 3, students shall specify the major to be indicated in the degree certificate, and pay the thesis examination fee when submitting a degree application form, doctoral thesis, list of related papers, abstract of the thesis, and curriculum vitae to the President.
5. The thesis examination fee shall be 57,000 yen.
6. Upon receipt of the documents specified in subsection 4 of this Article, the President shall forward the documents to the Dean of the relevant Graduate School according to the major specified by the student.
7. Thesis and other documents, once submitted, shall not be returned, and the thesis examination fee, once paid, shall not be refunded.

Article 5 (Thesis)

1. One thesis shall be accepted for degree examination. Students shall submit one copy per master's thesis and three copies per doctoral thesis, provided, however that additional papers may be attached to the thesis for reference.
2. The Dean of the relevant Graduate School may request submission of a translation of the thesis, model, specimen, or other materials if necessary for the thesis examination.

Article 6 (Final examination and Examination of Academic Ability)

1. The final examination shall be conducted by means of a written or oral examination on specialized topics relating to the thesis.
2. The Examination of Academic Ability specified in Article 3-3 above shall be conducted by means of a written or oral examination on the academic subjects relating to the doctoral thesis and on foreign language.

Article 7 (Screening Committee)

1. The Faculty Councils of the respective Graduate Schools shall have a Screening Committee for evaluating theses and conducting the final examination and Examination of Academic Ability.

2. Each of the Screening Committees shall consist of at least two faculty members of the respective Graduate School and common educational and research institution, provided, however, that the Committee members shall include two professors thereof.
3. Each of the Screening Committees shall have a chief referee.
4. Notwithstanding the provision of the foregoing subsection 2, faculty members of other Graduate Schools of NAIST or other graduate schools or research institutions outside of NAIST may be invited to join the Screening Committee if doing so is deemed necessary by the Faculty Council of the Graduate School for screening purposes.
5. Evaluation of doctoral theses submitted pursuant to Article 4-4 and the Examination of Academic Ability shall be completed within one year after the submission thereof, provided, however, that such a period may be extended if there is a special reason, subject to deliberation by the relevant Graduate School.

Article 8 (Notification of results)

1. The Screening Committee involved in conferral of master's degrees shall notify the Faculty Council of the relevant Graduate School of its decision as to whether to confer a master's degree or not in writing, immediately after completion of the evaluation of thesis and final examination.
2. The Screening Committee involved in conferral of doctoral degrees shall notify the Faculty Council of the relevant Graduate School of its decision in writing by specifying whether to confer a doctoral degree or not in the following documents, immediately after completion of the evaluation of thesis and final examination:
   (1) Abstract of the thesis submitted pursuant to Article 4-3, summary of the evaluation of the thesis and summary of the results of the final examination
   (2) Abstract of the thesis submitted pursuant to Article 4-4, summary of the evaluation of the thesis and summary of the results of the Examination of Academic Ability

Article 9 (Deliberation by Faculty Council)

The Faculty Council of each of the Graduate Schools shall discuss whether to confer a degree or not based on the notification specified in the foregoing article.

Article 10 (Notification of conclusion)

The Dean of the relevant Graduate School shall notify the President of the conclusion of the deliberation reached by the Faculty Council thereof in writing.

Article 11 (Conferral of degree)

1. The President shall confer a degree to the student who has been approved to receive the degree based on the notification specified in the foregoing article.
2. The format of a degree certificate shall be Form No. 1, Form No. 2 or Form No. 3 shown separately.
3. If it has been decided not to confer a degree to a certain student, the President shall notify the student of the decision.

Article 12 (Publication of abstract of doctoral thesis)

Within three months after conferring a doctoral degree, the President shall notify the Minister of Education, Culture, Sports, Science and Technology of the conferral and make the abstract of the doctoral thesis and the summary of the results of the evaluation of the thesis public via the internet .

Article 13 (Publication of doctoral thesis)

1. The recipient of a doctoral degree shall make his or her doctoral thesis public within one year after receipt thereof, provided, however, that this provision shall not apply if the thesis has been made public prior to the receipt thereof.
2. Notwithstanding the provision of the foregoing subsection, a recipient of a doctoral degree may make the abstract of his or her doctoral thesis public instead of the full text, subject to approval of NAIST, if there is a justifiable reason. In this case, NAIST shall allow access to the full text of the doctoral thesis when requested.
3. The public release established in the previous two clauses for doctoral degree recipient, shall be conducted via NAIST and the internet.

Article 14 (Reference to the degree)

When an individual who has been conferred a degree from NAIST refers to his or her degree, the name of NAIST shall be also mentioned together with the degree.

Article 15 (Withdrawal of a degree)

If it transpires that an individual was conferred a degree by NAIST by fraudulent means, the President shall withdraw the degree, have the degree certificate returned, and make public the fact, following the deliberation by the Faculty Council of the relevant Graduate School.

Article 16 (Miscellaneous provision)

Other matters relating to conferral of degrees shall be provided for separately.

Supplementary provisions

These Regulations shall come into effect on April 1, 2004.

Supplementary provisions

(Effective date)

1. These Regulations shall come into effect on June 1, 2013.

   (Transitional measures)

2. The revised degree regulations (hereinafter referred to as “new degree regulations”) outlined in Article 12 shall apply to those who have been conferred the doctoral degree on or after the date of regulation revision. However, for those who were conferred the doctoral degree prior to the date of revision, the regulations in force at the time of conferment shall apply.
3. The revised degree regulations outlined in Article 13 shall apply to those who have been conferred the doctoral degree on or after the date of regulation revision. However, for those who were conferred the doctoral degree prior to the date of revision, the regulations in force at the time of conferment shall apply.

Form No. 1 (Refer to Article 11) (To be issued for the degree conferred upon completion of the Master’s Course)

修第　　号

学　位　記

氏　名

年　月　日生

本学大学院□□□研究科◯◯◯専攻の博士前期課程を修了したので修士(◯◯)の学位を授与する

平成　年　月　日

奈良先端科学技術大学院大学長

学長名
大学の印　学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

hereby confers the degree of
Master of（専攻分野の名称）

Upon

（ 氏　　名）
(Surname)　(Given name)

(Date of birth)

for having successfully completed the Master’s Program in the Graduate School of （研究科名）
on this day,　（年月日）

Official Seal of the Institute　President’s Seal

（学長署名）
（学長名）
President

Masterdom No.:　（番号）

(Note 1) The sheet is A4-sized.

Form No. 2 (Refer to Article 11) (To be issued for the degree conferred upon completion of the Doctoral Course)

博第　　号

学　位　記

氏　名

年　月　日生

本学大学院○○○研究科○○○専攻の博士後期課程を修了したので博士(○○)の学位を授与する

平成　年　月　日

奈良先端科学技術大学院大学長

学長名
大学の印　学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

hereby confers the degree of
Doctor of（専攻分野の名称）

Upon

（ 氏　　名）
(Surname)　(Given name)

(Date of birth)

for having successfully completed the Doctoral Program in the Graduate School of （研究科名）
on this day,　（年月日）

Official Seal of the Institute　President's Seal

（学長署名）
（学長名）
President

Doctorate No.:　（番号）

(Note 1) The sheet is A4-sized.

Form No. 3 (Refer to Article 11.) (To be issued for the degree conferred pursuant to Article 3-3)

博第　　号

学　位　記

氏　名

年　月　日生

本学に学位論文を提出し所定の審査に合格したので博士(○○)の学位を授与する

平成　年　月　日

奈良先端科学技術大学院大学長

学長名
大学の印　学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

hereby confers the degree of
Doctor of（専攻分野の名称）

Upon

（ 氏　　名）
(Surname)　(Given name)

(Date of birth)

for having submitted a Doctoral Dissertation and having passed the Prescribed Evaluation
on this day,　（年月日）

Official Seal of the Institute　President's Seal

（学長署名）
（学長名）
President

Doctorate No.:　（番号）

(Note 1) The sheet is A4-sized.

Schedule for awarding of a degree

Degrees will be awarded on a quarterly basis (in March, June, September, or December).

Master's Course

The table below shows the rough schedule for the awarding of a degree. In the example below, a degree is to be awarded in March.

Timeline	Details
Mid-January	Deadline for submitting an application form for thesis examination, special thematic research examination, or thematic research examination; a list of Thesis, etc. Examining Committee candidate members; a form of approval for publishing a thesis in electronic format
Late January	A graduate school meeting (approval of the titles of theses, etc./Thesis, etc. Examining Committee members)
Mid-February	Deadline for submitting an abstract of a master's thesis, special thematic research report, or thematic research report (two sheets of A4 paper) Deadline for submitting a master's thesis, special thematic research report, or thematic research report (Students are required to submit a draft and an abstract of their thesis, etc. to respective examination members.)
Late February	Presentation sessions/a meeting to determine whether to award a degree
End of February	Deadline for submitting reports regarding thesis, etc. examination results
Mid-March	A Faculty Council meeting (delivering reports, holding discussions, and making resolutions about the examination results)
Mid-March	Deadline for submitting master's thesis, etc. (final version) Submitting PDF files of master's thesis, etc. (final version) to the Academic Information Division

"Thesis, etc." means a master's thesis, special thematic research report, and thematic research report.

Doctoral Course

The table below shows the schedule from submission of a doctoral thesis, to thesis examination and awarding of a degree. The schedule is subject to slight change depending on whether a Faculty Council meeting is held or not.

	Details	
(1)	A graduate school meeting determines whether the Doctoral Thesis Examining Committee can be set up, and selects examination members (four to five individuals).	Main research supervisors submit to the Chair of Educational Affairs Committee the following documents required for discussion by the day before the deadline for submitting the minutes of the graduate school meeting: (i) Doctoral Thesis Examining Committee List (ii) List of Research Papers (iii) Doctoral Thesis Summary (iv) Application Form for Doctoral Thesis Examination (v) Resume (vi) Acceptance of Distribution Terms, Letter of Consent (If an original thesis is prepared with co-authors at other institutions, attach a form for each co-author at other institutions, in principle.) ※Electronic data of (iii) is also required. Submit to MS Main office.
(2)	Submission of doctoral thesis (for examination)	Students submit to the Doctoral Thesis Examining Committee members a doctoral thesis (for examination), (ii) List of Research Papers, (iii) and Doctoral Thesis Summary by the separately-set deadline.
(3)	Delivering a report about the Doctoral Thesis Examining Committee members at a Faculty Council meeting	A report is delivered by the Doctoral Thesis Examining Committee members selected in (1) above at the first Faculty Council meeting held after the end of the above graduate school meeting.
(4)	Delivering a report about the results of the final examination and determining whether to award a degree at a graduate school meeting	Main research instructors submit to the Chair of Educational Affairs Committee the following documents required for discussion by the day before the deadline for submitting the minutes of the graduate school meeting: A document showing the doctoral thesis examination process (vii) Report on Doctoral Thesis Examination and Final Examination[*1] (viii) Summary of Thesis Examination Results[*1] (ix) About Copyright of Doctoral Thesis (x) Application Form for Postponement of Release of Doctoral Thesis on the web.

		(xi) Summary of Contents of Doctoral Thesis ((x) and (xi) are necessary for the case when the doctoral thesis cannot be released within one year) (For documents marked with *1, submit photocopies; submit original documents in (5).)
(5)	Making a decision at Faculty Council meeting to award a degree	Main research supervisors in respective courses submit to the Administrative Office of the Graduate School of Materials Science the following documents required for discussion at least two days before the Faculty Council meeting: (vii) Report on Doctoral Thesis Examination and Final Examination (viii) Summary of Thesis Examination Results# (xii) Summary of Doctoral Thesis# (xiii) Summary of Final Examination Results, a research guidance certification report (distributed by the Educational Affairs Division) ((xiv) Recommendation Report for Students completing Courses Early) (The documents marked with # will be released on the web.)
(6)	Submission of doctoral thesis	Submit pdf files of the doctoral thesis, (iii) summary, and (xi) summary of contents (students who hand in (x)) to the NAIST library office for archiving by one week in advance of awarding a degree.
(7)	Awarding of a degree	

Note 1: During the period from (1) to (4), the Doctoral Thesis Examining Committee holds public hearings and conducts final examinations. The schedule of the public hearings will be announced by the dean of the graduate school at least one week before such public hearings are held.

Note 2: In principle, the original thesis that is required when submitting a doctoral thesis must be received by the separately-set deadline (date and time).

Note 3: The schedule of the doctoral thesis preliminary examination shall be set separately for students who meet the doctoral thesis submission condition 3(b).

Note 4: The doctoral thesis will be available at the NAIST library and National Diet Library, even when handing in “Application Form for Postponement of Release of Doctoral Thesis on the web”.

Note 5: “Summary of Contents of Doctoral Thesis” is different from “Summary of Doctoral Thesis”. It should be approved by the main-supervisor.

Note 6: The files with numbering can be found on the Graduate School of Materials Science web site.

Schedule for awarding of a doctoral degree in academic year 2017

The table below shows the schedule from submission of a doctoral thesis, to thesis examination and awarding of a degree. The schedule is subject to slight change depending on whether a Faculty Council meeting is held or not.

	(1) Doctoral Thesis Examining Committee set up	(2) Submission of doctoral thesis	(3) Delivering a report about the Doctoral Thesis Examining Committee members	Original theses accepted	(4) Examination results reported Meeting held to determine whether to award a degree	(5) Decisions made to award a degree	(6) Submission of doctoral thesis	(7) Awarding of a degree
Degree to be awarded in June	**Graduate school meeting in March** **March 22**	**On the first Friday after the end of the graduate school meeting in March** **March 31**	**Delivering a report at a Faculty Council meeting in June** **June 13**	**May 16 17:00**	**Graduate school meeting in May** **May 23**	**Decisions made at a Faculty Council meeting in June** **June 13**	**Monday, June 19**	**Monday, June 26**
Submission deadline	On Thursday in the previous week				On Thursday in the previous week			
Degree to be awarded in September	**Graduate school meeting in June** **June 27**	**On the first Friday after the end of the graduate school meeting in June** **June 27**	**Delivering a report at a Faculty Council meeting in July** **July 12**	**August 18 17:00**	**Graduate school meeting in August** **August 25**	**Decisions made at a Faculty Council meeting in August** **August 29**	**Tuesday, September 19**	**Monday, September 25**
Submission deadline	On Thursday in the previous week				On Tuesday in the same week			
Degree to be awarded in December	**Graduate school meeting in September** **September 26**	**On the first Friday after the end of the graduate school meeting in September** **September 26**	**Delivering a report at a Faculty Council meeting in October** **October 16**	**November 21 17:00**	**Graduate school meeting in November** **November 28**	**Decisions made at a Faculty Council meeting in December** **December 12**	**Friday, December 15**	**Friday, December 22**
Submission deadline	On Thursday in the previous week				On Thursday in the previous week			
Degree to be awarded in March	**Graduate school meeting in December** **December 26**	**January 9**	**Delivering a report at a Faculty Council meeting to be held by February** **January 9**	**February 20 17:00**	**Graduate school meeting in February** **Febrary 27**	**Decisions made at a Faculty Council meeting in March** **March 9**	**Friday, March 16**	**Friday, March 23**
Submission deadline	On Thursday in the previous week				On Thursday in the previous week			

Date and time in the table show the deadline.

Note 1: After submission of a doctoral thesis, it takes at least one week to hold a public hearing.

Note 2: During the period from (1) to (4), the Doctoral Thesis Examining Committee holds public hearings and conducts final examinations. The schedule of the public hearings will be announced by the dean of the graduate school at least one week before such public hearings are held.

Note 3: In principle, the original thesis that is required when submitting a doctoral thesis must be received by the separately-set deadline (date and time).

Note 4: Document forms, etc. indicated with Roman numerals are available on the website of the Graduate School of Materials Science (accessible only by NAIST students).

Note 5: The schedule of doctoral thesis submission (2) will be publicly announced as soon as the graduate school meeting schedule, etc. is fixed. Students are advised to keep themselves properly informed.

Note 6: A public hearing will be held from January 24 to January 30.

Note 7: Electronic data of the Doctoral Thesis is required to submit to NAIST digital library by one week before the Awarding of a degree.

List of subjects and faculty members in charge for the Graduate School of Materials Science in academic year 2017

Master's Course

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Common Subjects	Computer System	000101	1	Nakashima	April	15	Common Subjects for All Graduate Schools
	Algorithm	000102	1	Inoue(others)	May-June	15	Common Subjects for All Graduate Schools
	Introduction to Biological Science	000202	1	Maki(others)	May-June	15	Common Subjects for All Graduate Schools
	Introduction to Materials Science	000301	1	Katsuki・Aratani	June-July	15	Common Subjects for All Graduate Schools
	Commentaries on Science and Technology	000201	1	Faculty members in charge	Jun-July	15	Common Subjects for All Graduate Schools
	Philosophy of Science	000103	1	(Nakao)	July	15	Common Subjects for All Graduate Schools
	Technology and Professional Ethics	000302	1	(Takahashi・Mitsui)	May-Juiy	15	Common Subjects for All Graduate Schools
	Science Communication	000203	1	(Bessho・Others)	October-November	15	Common Subjects for All Graduate Schools
General Subjects	Mathematical Analyses for Materials Science	311001	1	Ishizumi・Tomita・Takeda・Noda・Uenuma・Sasagawa・Nagao・Yamazaki	April	15	
	Materials Science English I	311002	1	McDowell ・(Nakayama)	May-July	15	
	Materials Science English IIA	312003	1	McDowell	October-November	15	If credit is received for this subject, students may not earn credits in Material Science English IIB (doctoral program).
	Materials Science English IIIA	313004	1	McDowell	November-December	15	If credit is received for this subject, students may not earn credits in Material Science English IIIB (doctoral program).
	Science & Technology Policy and Intellectual Property	310005	1	Kubo ・ (Ohtake ・ Matsuo)	July	15	
	Science Literacy	310006	1	Kikuchi・Kawai・Yamada	Autumn semester	15	
	Global Entrepreneur I	111011	1	Faculty members in charge	Intensive lectures	15	Subject in Information Science
	Global Entrepreneur II	111012	1	Faculty members in charge	Intensive lectures	15	Subject in Information Science
	Global Entrepreneur III	112013	1	Faculty members in charge	Intensive lectures	15	Subject in Information Science
	Global Entrepreneur IV	112014	1	Faculty members in charge	Intensive lectures	15	Subject in Information Science
	Global Entrepreneur V	112015	1	Faculty members in charge	Intensive lectures	15	Subject in Information Science

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Basic Subjects	Photonic Nanoscience I	320001	1	Faculty members of respective laboratories	April	15	
	Photonic Nanoscience II	320002	1	Faculty members of respective laboratories	April	15	
	Photonic Nanoscience Core I	321103	1	Nakamura・Hattori・Kobayashi・Suzuki・Jujo・Katayama	April	15	
	Photonic Nanoscience Core II	321104	1	Hosokawa・Hattori・Hosoito・Tanimoto・Okada	April-May	15	
	Photonic Nanoscience Core III	321305	1	Yanagi・Kawai・Kamikubo・Yamanaka・Nonoguchi・Hayashi	April	15	
	Photonic Nanoscience Core IV	321306	1	Yanagi・Yanagida Yasuhara・Terada	April-May	15	
	Solid State Physics I	321107	1	(EC)Nakamura・Hosokawa・Matsui (AC)Daimon・Hattori・Hosoito	May	15	
	Solid State Physics II	321108	1	(EC)Tokuda・Matsui (AC)Daimon・Katsuki・Hosoito	May-June	15	
	Organic Chemistry I	321309	1	(EC)Kakiuchi・Morimoto・Ando (AC)Fujiki・Hirota・Nakashima	May	15	
	Physical Chemistry and Biochemistry II	321310	1	(EC)Hirota・Hosokawa・Matsuo (AC)Kakiuchi・Kikuchi・Nakashima	May-June	15	
	Advanced Materials Science I	321111	1	(EC)Nakamura・Hosokawa・Matsui (AC)Daimon・Hattori・Hosoito	May	15	
	Advanced Materials Science II	321312	1	(EC)Kakiuchi・Morimoto・Ando (AC)Fujiki・Hirota・Nakashima	May	15	
	Advanced Materials Science III	321113	1	(EC)Tokuda・Matsui (AC)Daimon・Katsuki・Hosoito	May-June	15	
	Advanced Materials Science IV	321314	1	(EC)Hirota・Hosokawa・Matsuo (AC)Kakiuchi・Kikuchi・Nakashima	May-June	15	
	Modern Quantum Mechanics	321115	1	Yanagida・Kawaguchi	June-July	15	
	Advanced Semiconductor Engineering	321216	1	Uraoka・Ishikawa	June-July	15	
	Advanced Optoelectronics	321217	1	Ohta	June-July	15	
	Advance Electronics Materials Engineering	321218	1	Uraoka・Ishikawa・Miyake	June-July	15	
	Modern Organic Chemistry	321319	1	Yamada・Morimoto	June-July	15	
	Advanced Polymer Chemistry	321320	1	Fujiki・Ando	June-July	15	
	Modern Inorganic Chemistry	321321	1	Matsuo・Benten	June-July	15	
	Advanced Biochemistry	321622	1	Hirota・Ando・Kamikubo	June-July	15	

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Specialized Subjects	Optical and Magnetic Properties of Matter Special	332101	1	Yanagi・Hosokawa・Katsuki・Hosoito	October-November	15	
	Electronic Properties and Atmic Structures of Solid and Surfaces Special	332102	1	Daimon・Yanagida・Hattori・Matsui	October-November	15	
	Photonics Special	332203	1	Ohta・Tokuda	October-November	15	
	Information Device Special	332204	1	Uraoka・Nakamura・Ishikawa	October-November	15	
	Molecular Photoscience Special	332305	1	Kawai・Yamada・Nakashima・Aratani	October-November	15	
	Advanced Organic Reactions and Stereochemistry Special	332306	1	Fujiki・Kakiutchi・Morimoto・Tanimoto	October-November	15	
	Biofunctional Materials Special	332607	1	Kikuchi・Ando・Yasuhara・Tahara・Terada	October-November	15	
	Biomaterials Science Special	332608	1	Hirota・Kamikubo・Matsuo	October-November	15	
	Advanced Industrial Science and Technology Speical	332009	1	Faculty members of collaborative laboratories	October-November	15	
	Materials Science Special I	332110	1	(Mibu・Hotta)	Autumn semester	15	
	Materials Science Special II	332211	1	(Nishioka・Kinoshita)	Autumn semester	15	
	Materials Science Special III	332312	1	(Kato・Kawamura・Kobe)	Autumn semester	15	
	Materials Science Special IV	332613	1	(Kimura・Naka)	Autumn semester	15	
Experiments in Materials Science		340001	2	Faculty members of assigned laboratory	April-May	60	
Seminar A		340002	1	Faculty members of assigned laboratory		15	
Seminar B		340003	2	Faculty members of assigned laboratory		30	
Interdisciplinary Seminar A		340004	1	Faculty members		15	
Interdisciplinary Seminar B		340005	2	Faculty members		30	
Research Thesis		350001	6	Faculty members of assigned laboratory			
Specialized Research on Materials Science		350002	5	Faculty members of assigned laboratory			
Research on Materials Science		350003	4	Faculty members of assigned laboratory			

Lecturers in charge (shown in parentheses) are part-time instructors
Note: The detailed schedule will be released at a later date.

List of subjects and faculty members in charge for the Graduate School of Materials Science in academic year 2017

Master's Course（i course）

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
CommonSubjects	Technology and Professional Ethics (i)	000104	1	(Ueda)	Autumn semester in first academic year	15	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅰ (i)	000303	2	(Iwasaki etc.)	Autumn semester in first academic year	30	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅱ (1) (i)	000204	1	(Nakao)	Autumn semester in first academic year	15	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅱ (2) (i)	000205	1	(Nakao)	Spring semester in second academic year	15	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅲ (1) (i)	000206	1	(Hashimoto)	Second academic year	15	Common Subjects for All Graduate Schools
	Japanese Class for Beginners Ⅲ (2) (i)	000207	1	(Hashimoto)	Second academic year	15	Common Subjects for All Graduate Schools
	Japanese Culture (i)	000105	2	(Adarsh)	First academic year	30	Common Subjects for All Graduate Schools
General Subjects	Mathematical Analysis for Materials Science (i)	311051	1	Ishizumi・Tomita・Takeda・Noda・Uenuma・Fujii・Nagao・Yamazaki	Autumn semester	15	
	Materials Science English Ⅰ (i)	311052	1	(Nakayama)	Autumn semester	15	
	Materials Science English Ⅱ (i)	312053	1	McDowell	Autumn semester	15	
	Materials Science English Ⅲ (i)	313054	1	McDowell	Autumn semester	15	
	Science Literacy (i)	310055	1	Faculty members of assigned laboratory	Autumn semester	15	
	Intellectual Property Rights (i)	110010	1	Kubo	Autumn semester	15	"Intellectual Property Rights" provided by Information Science
	Intercultural Communication (i)	110009	1	(Sell)	Autumn semester	15	"Intercultural Communication" provided by Information Science
Basic Subjects	Photonic Nanoscience Ⅰ (i)	320051	1	Faculty members of respective laboratories	Autumn semester	15	
	Photonic Nanoscience Ⅱ (i)	320052	1	Faculty members of respective laboratories	Autumn semester	15	
	Photon and Condensed Matters Ⅰ (i)	321153	1	Hosokawa・Jujo	Autumn semester	15	
	Photon and Condensed Matters Ⅱ (i)	321154	1	(Okano)	Autumn semester	15	
	Photon and Molecules Ⅰ (i)	321355	1	Kamikubo・Yamazaki	Autumn semester	15	
	Photon and Molecules Ⅱ (i)	321356	1	(Koe)	Autumn semester	15	
Specialized Subjects	Quantum Molecular Science (i)	332151	1	Yanagi・Katsuki	Autumn semester	15	
	Surface Science (i)	332152	1	Daimon・Hattori・Takeda・Taguchi	Autumn semester	15	
	Advanced Photonic Devices (i)	332253	1	Ohta・Tokuda	Autumn semester	15	
	Information Device Science (i)	332254	1	Uraoka・Ishikawa	Autumn semester	15	
	Technology for Advanced Measurement(i)	332255	1	Yanagida・Nakamura・Kawaguchi・Okada	Autumn semester	15	
	Electronic and Magnetic Structure (i)	332156	1	Hosoito・Matsui	Autumn semester	15	
	Synthetic Organic Chemistry (i)	332357	1	Morimoto・Tanimoto・(Mizuno)	Autumn semester	15	
	Biomolecular Chemistry (i)	332658	1	Hirota・Matsuo	Autumn semester	15	

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Specialized Subjects	Advanced Biomaterials (i)	332659	1	Ando・Terada・Kobayashi	Autumn semester	15	
	Photochemical Materials (i)	332360	1	Kawai・Nakashima	Autumn semester	15	
	Organic Functional Materials (i)	332361	1	Yamada・Aratani	Autumn semester	15	
	Advanced Polymers and Molecular Assemblies (i)	332362	1	Fujiki・Kikuchi	Autumn semester	15	
	Materials Science Special Ⅰ (i)	332063	1	(Yvan・Tiphaine・Bermundo)	Autumn semester	15	
	Materials Science Special Ⅱ (i)	332064	1	(Rapenne・Miyazawa)	Autumn semester	15	
Experiments in Materials Science (i)		340051	3	Faculty members of assigned laboratory	Autumn semester	90	
Seminar (i)		340052	2	Faculty members of assigned laboratory		30	
Interdisciplinary Seminar (i)		340053	2	Faculty members		30	
Research Thesis (i)		350051	6	Faculty members of assigned laboratory			

Lecturers in charge (shown in parentheses) are part-time instructors
Note: The detailed schedule will be released at a later date.

List of subjects and faculty members in charge for the Graduate School of Materials Science in academic year 2017

Doctoral Course

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Internationalization subjects	Materials Science English IIB	362001	1	McDowell	October	15	If credit is received for this subject, students may not earn credits in Material Science English IIA (master's program).
	Materials Science English IIIB	363002	1	McDowell	November-December	15	If credit is received for this subject, students may not earn credits in Material Science English IIIA (master's program).
	Practical English for Materials Science	363003	2	Chair of Educational Affairs Committee	January	30	
	Science Literacy (Advanced Course I)	360004	1	Faculty members of assigned laboratory	One year	15	
	Science Literacy (Advanced Course II)	360005	1	Faculty members of assigned laboratory	One year	15	
	International Internship	360006	2	Chair of Educational Affairs Committee	One year	30	
	Interdisciplinary Internship	360007	1	Faculty members of assigned laboratory	One year	15	
	Photonic Nanoscience Special Lectures	360008	1	Chair of Educational Affairs Committee	One year	15	
Interdisciplinary subjects	Interdisciplinary Materials Science	360009	1	Daimon,Uraoka,Katsuki, Tokuda,Nakashima, Aratani,(Sugiyama)	October-December	15	
Research Management	Research Management Exercise A	370001	1	Chair of Educational Affairs Committee	One year	15	
	Research Management Exercise B	370002	1	Chair of Educational Affairs Committee	One year	15	
	Research Management Exercise C	370003	1	Faculty members of assigned laboratory	One year	15	
	Exercise in Advanced Materials Science	370004	2	Faculty members of assigned laboratory	One year	30	
Interdisciplinary seminars	Seminar for Interdisciplinary Materials Science A	370005	1	Chair of Educational Affairs Committee	Autumn semester	15	
	Seminar for Interdisciplinary Materials Science B	370006	1	Chair of Educational Affairs Committee	Autumn semester	15	
	Seminar for Interdisciplinary Materials Science C	370007	1	Chair of Educational Affairs Committee	Autumn semester	15	
General research	Advanced Materials Science	370008	6	Faculty members of assigned laboratory	One year		

Lecturers in charge (shown in parentheses) are part-time instructors
Note: A detailed schedule will be released separately.

Numbering Information

Subject numbers consist of 6-digit numbers based on levels, difficulties, and other elements of courses. Please review the following information carefully before you register for courses.

［How to read the subject numbers］

First digit : The first digit in the 6-digit numbers indicates categories of common subjects or subjects offered by each Graduate School:

0XXXXX = Common Subjects for All Graduate Schools

1XXXXX = Subjects offered by the Graduate School of Information Science

2XXXXX = Subjects offered by the Graduate School of Biological Sciences

3XXXXX = Subjects offered by the Graduate School of Materials Science

Second digit : The second digit in the 6-digit numbers indicates levels of subjects:

X**0**XXXX = Common subjects［For master’s course］

X**1**XXXX = General subjects［For master’s course］

X**2**XXXX = Basic subjects［For master’s course］

X**3**XXXX = Specialized subjects［For master’s course］

X**4**XXXX = Advanced topics (Laboratory Activities) / Seminar ［For master’s course］

X**5**XXXX = Thesis / Specialized research / Research［For master’s course］

X**6**XXXX = Doctoral subjects (Except below doctoral subject) ［For doctoral course］

X**7**XXXX = Dissertation / Research［For doctoral course］

Third digit : The third digit in the 6-digit numbers indicates difficulties of subjects:

XX**0**XXX = No category

XX**1**XXX = Basic

XX**2**XXX = Intermediate

XX**3**XXX = Advanced

Fourth digit : The fourth digit in the 6-digit numbers indicates a field code of the lecture:

XXX**1**XX = physics, XXX**2**XX = electronics & devices, XXX**3**XX = chemistry, XXX**4**XX = biology (animals), XXX**5**XX = biology (plants), XXX**6**XX = biology (others), XXX**7**XX = informatics (mathmathics), XXX**8**XX = informatics (language), XXX**9**XX = informatics (programming), XXX**0**XX = others

Fifth and Sixth digits : The fifth and sixth digits in the 6-digit numbers indicate serial numbers in each category indicated by the second digit:

(Master’s Course)

XXXX**01** ~ XXXX**50** = general course, XXXX**51** ~ XXXX**99** = international course

(Doctoral Course)

XXXX**XX** = The fifth and sixth digits in the 6-digit numbers indicate serial numbers(ranging from 01 to 99) based on levels of subjects categorized by second digit

Regarding the fourth to sixth digits in the 6-digit numbers of common subjects or subjects offered by other Graduate Schools refer to the following.

i) For common subjects with the first digit of "0", please refer to the following guideline.

Fourth digit : The fourth digit in the 6-digit numbers indicates categories of subjects offered by each Graduate School:

XXX**1**XX = Subjects offered by the Graduate School of Information Science

XXX**2**XX = Subjects offered by the Graduate School of Biological Sciences

XXX**3**XX = Subjects offered by the Graduate School of Materials Science

Fifth and Sixth digits : The fifth and sixth digits in the 6-digit numbers indicate serial numbers assigned by each Graduate School.

XXXXXX = Serial numbers (ranging from 01 to 99) assigned by each Graduate School

ii) For subjects offered by other Graduate Schools with the first digit of "1 or 2", please refer to other Graduate Schools guideline.

GSMS i course : Timetable in academic year 2017

The schedule is subject to change.

		Events	1st (9:20–10:50)	2nd (11:00–12:30)	3rd (13:30–15:00)	4th (15:10–16:40)	5th (16:50–18:20)
4/1	Sat	Spring Vacation					
4/2	Sun	Spring Vacation					
4/3	Mon	Spring Vacation					
4/4	Tue				16:00–17:00 Network Guidance		
4/5	Wed	Entrance Ceremony		Entrance Ceremony			
4/6	Thu	Spring Term	TOEIC IP test			(Network Guidance, Safety Education)	
4/7	Fri					Japanese Culture–1	
4/8	Sat						
4/9	Sun						
4/10	Mon						
4/11	Tue						
4/12	Wed						
4/13	Thu						
4/14	Fri					Japanese Culture–2	Research Ethics Education
4/15	Sat					Japanese Culture–3(Field Trip)	
4/16	Sun						
4/17	Mon						
4/18	Tue					Japanese Class II (2)–1	Japanese Class III (2)–1
4/19	Wed						
4/20	Thu						
4/21	Fri					Japanese Culture–4	
4/22	Sat					Japanese Culture–5(Field Trip)	
4/23	Sun						
4/24	Mon						
4/25	Tue					Japanese Class II (2)–2	Japanese Class III (2)–2
4/26	Wed						
4/27	Thu						
4/28	Fri					Japanese Culture–6	spare(Common Subject)
4/29	Sat	National Holiday					
4/30	Sun						
5/1	Mon						
5/2	Tue					Japanese Class II (2)–3	Japanese Class III (2)–3
5/3	Wed	National Holiday					
5/4	Thu	National Holiday					
5/5	Fri	National Holiday					
5/6	Sat						
5/7	Sun						
5/8	Mon						
5/9	Tue		Safety Education(Experiments–1)	Safety Education(Experiments–2)		Japanese Class II (2)–4	Japanese Class III (2)–4
5/10	Wed		Safety Education(Experiments–3)	Safety Education(Experiments–4)	Experiments–5	Experiments–6	Experiments–7
5/11	Thu		MS English I–1		Experiments–8	Experiments–9	Experiments–10
5/12	Fri				Experiments–11	Japanese Culture–7	spare(Common Subject)
5/13	Sat						
5/14	Sun						
5/15	Mon				Experiments–12	Experiments–13	Experiments–14
5/16	Tue				Experiments–15	Japanese Class II (2)–5	Japanese Class III (2)–5
5/17	Wed				Experiments–16	RI & X–ray Lecture (for foreign students)	
5/18	Thu		MS English I–2		Experiments–17	Experiments–18	Experiments–19
5/19	Fri				Experiments–20	Japanese Culture–8	spare(Common Subject)
5/20	Sat						
5/21	Sun						
5/22	Mon				Experiments–21	Experiments–22	Experiments–23
5/23	Tue				Experiments–24	Japanese Class II (2)–6	Japanese Class III (2)–6
5/24	Wed				Experiments–25	Experiments–26	Experiments–27
5/25	Thu		MS English I–3		Experiments–28	Experiments–29	Experiments–30
5/26	Fri				Experiments–31	Japanese Culture–9	spare(Common Subject)
5/27	Sat						
5/28	Sun						
5/29	Mon				Experiments–32	Experiments–33	Experiments–34
5/30	Tue				Experiments–35	Japanese Class II (2)–7	Japanese Class III (2)–7
5/31	Wed				Experiments–36	Experiments–37	Experiments–38

		Events	1st (9:20–10:50)	2nd (11:00–12:30)	3rd (13:30–15:00)	4th (15:10–16:40)	5th (16:50–18:20)
6/1	Thu				Experiments–39	Experiments–40	Experiments–41
6/2	Fri				Experiments–42	Japanese Culture–10	spare(Common Subject)
6/3	Sat						
6/4	Sun						
6/5	Mon				Experiments–43	Experiments–44	Experiments–45
6/6	Tue					Japanese Class II (2)–8	Japanese Class III (2)–8
6/7	Wed						
6/8	Thu		MS English I–4				
6/9	Fri					Japanese Culture–11	spare(Common Subject)
6/10	Sat						
6/11	Sun						
6/12	Mon						
6/13	Tue					spare(Common Subject)	spare(Common Subject)
6/14	Wed						
6/15	Thu		MS English I–5				
6/16	Fri					Japanese Culture–12	spare(Common Subject)
6/17	Sat						
6/18	Sun						
6/19	Mon						
6/20	Tue						
6/21	Wed						
6/22	Thu		MS English I–6				
6/23	Fri	Medical Checkup					
6/24	Sat						
6/25	Sun						
6/26	Mon	Graduation Ceremony					
6/27	Tue					spare(Common Subject)	spare(Common Subject)
6/28	Wed						
6/29	Thu		MS English I–7				
6/30	Fri					Japanese Culture–13	spare(Common Subject)
7/1	Sat						
7/2	Sun						
7/3	Mon						
7/4	Tue					spare(Common Subject)	spare(Common Subject)
7/5	Wed	Entrance Exam					
7/6	Thu	Entrance Exam	MS English I–8				
7/7	Fri	Entrance Exam					
7/8	Sat						
7/9	Sun						
7/10	Mon	Entrance Exam					
7/11	Tue					spare(Common Subject)	spare(Common Subject)
7/12	Wed						
7/13	Thu						
7/14	Fri					Japanese Culture–14	spare(Common Subject)
7/15	Sat						
7/16	Sun						
7/17	Mon	National Holiday					
7/18	Tue					spare(Common Subject)	spare(Common Subject)
7/19	Wed						
7/20	Thu						
7/21	Fri					Japanese Culture–15	spare(Common Subject)
7/22	Sat						
7/23	Sun						
7/24	Mon						
7/25	Tue					spare(Common Subject)	spare(Common Subject)
7/26	Wed						
7/27	Thu						
7/28	Fri					Japanese Culture–16	spare(Common Subject)
7/29	Sat						
7/30	Sun						
7/31	Mon						

		Events	1st (9:20-10:50)	2nd (11:00-12:30)	3rd (13:30-15:00)	4th (15:10-16:40)	5th (16:50-18:20)
10/1	Sun	Foundation Day					
10/2	Mon			Entrance Ceremony	Orientation for New Students	Network Guidance	
10/3	Tue		Safety Education(Experiments-1)	Safety Education(Experiments-2)	Intellectual Property-1	Research Ethics Education	
10/4	Wed		Safety Education(Experiments-3)	Safety Education(Experiments-4)	Mathematical Analysis-1	Mathematical Analysis-2	
10/5	Thu		Mathematical Analysis-3	Mathematical Analysis-4	MS English II-1	Experiments-5	
10/6	Fri		Mathematical Analysis-5	Mathematical Analysis-6	Opto-Nano Science I 1-4		
10/7	Sat						
10/8	Sun						
10/9	Mon						
10/10	Tue				MS English II-2		
10/11	Wed						
10/12	Thu				MS English II-3		
10/13	Fri					Japanese Culture-1	
10/14	Sat						
10/15	Sun						
10/16	Mon		Mathematical Analysis-7	Mathematical Analysis-8	MS English II-4	Experiments-6	
10/17	Tue		Opto-Nano Science I 5-7		Intellectual Property-2	Japanese Class I-1 /Japanese Class II (1)-1	Japanese Class I-2 /Japanese Class III (1)-1
10/18	Wed		Opto-Nano Science I 8-10		Photon & Cond. Matters I-1 /Photon & Molecules I-1	Photon & Cond. Matters I-2 /Photon & Molecules I-2	
10/19	Thu		Opto-Nano Science I 11-12,II 1		MS English II-5	Photon & Cond. Matters I-3 /Photon & Molecules I-3	
10/20	Fri		Opto-Nano Science II 2-4		Photon & Cond. Matters I-4 /Photon & Molecules I-4	Japanese Culture-2	spare(Common Subject)
10/21	Sat					Japanese Culture-3(Field Trip)	
10/22	Sun						
10/23	Mon		Opto-Nano Science II 5-7		MS English II-6	Photon & Cond. Matters I-5 /Photon & Molecules I-5	
10/24	Tue		Opto-Nano Science II 8-10		Intellectual Property-3	Japanese Class I-3 /Japanese Class II (1)-2	Japanese Class I-4 /Japanese Class III (1)-2
10/25	Wed		Photon & Cond. Matters II-1 /Photon & Molecules II-1	Photon & Cond. Matters II-2 /Photon & Molecules II-2	Photon & Cond. Matters I-6 /Photon & Molecules I-6	Photon & Cond. Matters I-7 /Photon & Molecules I-7	
10/26	Thu		Photon & Cond. Matters II-3 /Photon & Molecules II-3	Photon & Cond. Matters II-4 /Photon & Molecules II-4	MS English II-7	Opto-Nano Science II 11-13	
10/27	Fri		Photon & Cond. Matters II-5 /Photon & Molecules II-5	Photon & Cond. Matters II-6 /Photon & Molecules II-6	Photon & Cond. Matters I-8 /Photon & Molecules I-8	Japanese Culture-4	spare(Common Subject)
10/28	Sat					Japanese Culture-5(Field Trip)	
10/29	Sun						
10/30	Mon		Photon & Cond. Matters II-7 /Photon & Molecules II-7	Photon & Cond. Matters II-8 /Photon & Molecules II-8	MS English II-8	Quantum Molecular Sci.-1 /Synthetic Organic Chem.-1	
10/31	Tue		Experiments-7	Experiments-8	Intellectual Property-4	Japanese Class I-5 /Japanese Class II (1)-3	Japanese Class I-6 /Japanese Class III (1)-3
11/1	Wed		Experiments-9	Experiments-10	Surface Science-1 /Biomolecular Chemistry-1	Adv. Photonic Devices-1 /Adv. Biomaterials-1	
11/2	Thu		Experiments-11	Experiments-12			
11/3	Fri	National Holiday					
11/4	Sat						
11/5	Sun						
11/6	Mon		Information Device Sci.-1 /Photochemical Materials-1	Technology for Adv. Measurement-1 /Organic Functional Materials -1	Experiments-13	Experiments-14	Experiments-15
11/7	Tue		Electronic & Magnetic Struc.-1 /Adv. Polymers & Mol. Assemblies-1	Surface Science-2 /Biomolecular Chemistry-2	Intellectual Property-5	Japanese Class I-7 /Japanese Class II (1)-4	Japanese Class I-8 /Japanese Class III (1)-4
11/8	Wed	Evaluation Symposium					
11/9	Thu	Evaluation Symposium					
11/10	Fri	Evaluation Symposium				Japanese Culture-6	spare(Common Subject)
11/11	Sat						
11/12	Sun						
11/13	Mon		Quantum Molecular Sci.-2 /Synthetic Organic Chem.-2	Information Device Sci.-2 /Photochemical Materials-2	MS English III-1	Experiments-16	Experiments-17
11/14	Tue		Adv. Photonic Devices-2 /Adv. Biomaterials-2	Electronic & Magnetic Struc.-2 /Adv. Polymers & Mol. Assemblies-2	Intellectual Property-6	Japanese Class I-9 /Japanese Class II (1)-5	Japanese Class I-10 /Japanese Class III (1)-5
11/15	Wed		TOEIC IP test			Experiments-18	Experiments-19
11/16	Thu		TOEIC IP test		MS English III-2	Experiments-20	Experiments-21
11/17	Fri		Technology for Adv. Measurement-2 /Organic Functional Materials -2	Quantum Molecular Sci.-3 /Synthetic Organic Chem.-3	Surface Science-3 /Biomolecular Chemistry-3	Japanese Culture-7	spare(Common Subject)
11/18	Sat						
11/19	Sun						
11/20	Mon		Adv. Photonic Devices-3 /Adv. Biomaterials-3	Information Device Sci.-3 /Photochemical Materials-3	MS English III-3	Experiments-22	Experiments-23
11/21	Tue		Technology for Adv. Measurement-3 /Organic Functional Materials -3	Electronic & Magnetic Struc.-3 /Adv. Polymers & Mol. Assemblies-3	Intellectual Property-7	Japanese Class I-11 /Japanese Class II (1)-6	Japanese Class I-12 /Japanese Class III (1)-6
11/22	Wed		Surface Science-4 /Biomolecular Chemistry-4	Quantum Molecular Sci.-4 /Synthetic Organic Chem.-4	MS English III-4	Experiments-24	Experiments-25
11/23	Thu	National Holiday					
11/24	Fri		Information Device Sci.-4 /Photochemical Materials-4	Adv. Photonic Devices-4 /Adv. Biomaterials-4	spare	Japanese Culture-8	spare(Common Subject)
11/25	Sat						
11/26	Sun						
11/27	Mon		Electronic & Magnetic Struc.-4 /Adv. Polymers & Mol. Assemblies-4	Technology for Adv. Measurement-4 /Organic Functional Materials -4	MS English III-5	Experiments-26	Experiments-27
11/28	Tue		Quantum Molecular Sci.-5 /Synthetic Organic Chem.-5	Surface Science-5 /Biomolecular Chemistry-5	Intellectual Property-8	Japanese Class I-13 /Japanese Class II (1)-7	Japanese Class I-14 /Japanese Class III (1)-7
11/29	Wed		Adv. Photonic Devices-5 /Adv. Biomaterials-5	Information Device Sci.-5 /Photochemical Materials-5	spare	Experiments-28	Experiments-29
11/30	Thu		Technology for Adv. Measurement-5 /Organic Functional Materials -5	Electronic & Magnetic Struc.-5 /Adv. Polymers & Mol. Assemblies-5	MS English III-6		

		Events	1st (9:20-10:50)	2nd (11:00-12:30)	3rd (13:30-15:00)	4th (15:10-16:40)	5th (16:50-18:20)
12/1	Fri		Surface Science-6 /Biomolecular Chemistry-6	Quantum Molecular Sci.-6 /Synthetic Organic Chem.-6	Intercultural Comm.-1	Japanese Culture-9	spare(Common Subject)
12/2	Sat						
12/3	Sun						
12/4	Mon		Information Device Sci.-6 /Photochemical Materials-6	Adv. Photonic Devices-6 /Adv. Biomaterials-6	MS English III-7	Experiments-30	Experiments-31
12/5	Tue		Electronic & Magnetic Struc.-6 /Adv. Polymers & Mol. Assemblies-6	Technology for Adv. Measurement-6 /Organic Functional Materials -6	spare	Japanese Class I-15 /Japanese Class II (1)-8	Japanese Class I-16 /Japanese Class III (1)-8
12/6	Wed		Quantum Molecular Sci.-7 /Synthetic Organic Chem.-7	Surface Science-7 /Biomolecular Chemistry-7	spare	Experiments-32	Experiments-33
12/7	Thu		Adv. Photonic Devices-7 /Adv. Biomaterials-7	Information Device Sci.-7 /Photochemical Materials-7	MS English III-8	Experiments-34	Experiments-35
12/8	Fri		Technology for Adv. Measurement-7 /Organic Functional Materials -7	Electronic & Magnetic Struc.-7 /Adv. Polymers & Mol. Assemblies-7	Intercultural Comm.-2	Japanese Culture-10	spare(Common Subject)
12/9	Sat						
12/10	Sun						
12/11	Mon		Surface Science-8 /Biomolecular Chemistry-8	Quantum Molecular Sci.-8 /Synthetic Organic Chem.-8	spare	Experiments-36	Experiments-37
12/12	Tue		Information Device Sci.-8 /Photochemical Materials-8	Adv. Photonic Devices-8 /Adv. Biomaterials-8	spare	Experiments-38	Experiments-39
12/13	Wed		Electronic & Magnetic Struc.-8 /Adv. Polymers & Mol. Assemblies-8	Technology for Adv. Measurement-8 /Organic Functional Materials -8	spare	Experiments-40	Experiments-41
12/14	Thu		Experiments-42	Experiments-43	spare	Experiments-44	Experiments-45
12/15	Fri		spare	spare	Intercultural Comm.-3	Japanese Culture-11	
12/16	Sat						
12/17	Sun						
12/18	Mon		spare	spare	spare		
12/19	Tue		spare	spare	spare		
12/20	Wed						
12/21	Thu						
12/22	Fri	Graduation Ceremony			Intercultural Comm.-4	Japanese Culture-12	
1/4	Thu						
1/5	Fri			Science Literacy-1	Intercultural Comm.-5	Japanese Culture-13	
1/6	Sat						
1/7	Sun						
1/8	Mon	National Holiday					
1/9	Tue			Science Literacy-2			
1/10	Wed			Science Literacy-3	Science Literacy-4		
1/11	Thu			Science Literacy-5			
1/12	Fri			Science Literacy-6	Intercultural Comm.-6	Japanese Culture-14	
1/13	Sat						
1/14	Sun						
1/15	Mon			Science Literacy-7			
1/16	Tue			Science Literacy-8			
1/17	Wed						
1/18	Thu						
1/19	Fri				Intercultural Comm.-7	Japanese Culture-15	
1/20	Sat						
1/21	Sun						
1/22	Mon						
1/23	Tue						
1/24	Wed						
1/25	Thu						
1/26	Fri				Intercultural Comm.-8	Japanese Culture-16	
1/27	Sat						
1/28	Sun						
1/29	Mon						
1/30	Tue						
1/31	Wed						
2/1	Thu						
2/2	Fri						
2/3	Sat						
2/4	Sun						
2/5	Mon						
2/6	Tue						
2/7	Wed						
2/8	Thu						
2/9	Fri						
2/10	Sat						
2/11	Sun						
2/12	Mon	National Holiday					
2/13	Tue						
2/14	Wed						
2/15	Thu						
2/16	Fri						
2/17	Sat						
2/18	Sun						
2/19	Mon						
2/20	Tue						
2/21	Wed						
2/22	Thu						
2/23	Fri						

The Classes are conducted in the following rooms.

Category	Subject name	Room name
Common Subjects	Technology and Professional Ethics (i)	N/A in this academic year
	Japanese Class for Beginners Ⅰ (i)	MS F105
	Japanese Class for Beginners Ⅱ (1) (i)	BS L13
	Japanese Class for Beginners Ⅱ (2) (i)	
	Japanese Class for Beginners Ⅲ (1) (i)	N/A in this academic year
	Japanese Class for Beginners Ⅲ (2) (i)	N/A in this academic year
	Japanese Culture (i)	IS L3 (Lecture), MS E207・208 (Practice)
General Subjects	Mathematical Analysis for Materials Science (i)	MS F106
	Materials Science English Ⅰ (i)	MS E207・208
	Materials Science English Ⅱ (i)	E207・208
	Materials Science English Ⅲ (i)	
	Science Literacy (i)	Assigned laboratory
	Intellectual Property Rights (i)	IS L1
	Intercultural Communication (i)	IS L3
Basic Subjects	Opto-Nano Science Ⅰ (i)	Respective laboratories
	Opto-Nano Science Ⅱ (i)	
	Photon and Condensed Matters Ⅰ (i)	MS F106 or F105
	Photon and Condensed Matters Ⅱ (i)	
	Photon and Molecules Ⅰ (i)	
	Photon and Molecules Ⅱ (i)	
Specialized Subjects	Quantum Molecular Science (i)	MS F106 or F105
	Surface Science (i)	
	Advanced Photonic Devices (i)	
	Information Device Science (i)	
	Technology for Advanced Measurement (i)	
	Electronic and Magnetic Structure (i)	
	Synthetic Organic Chemistry (i)	
	Biomolecular Chemistry (i)	
	Advanced Biomaterials (i)	
	Photochemical Materials (i)	
	Organic Functional Materials (i)	
	Advanced Polymers and Molecular Assemblies (i)	
	Materials Science Special Ⅰ (i)	
	Materials Science Special Ⅱ (i)	

Online Syllabus

Syllabi are available from the Graduate School of Materials Science Homepage. They can be viewed, printed and downloaded by accessing the following:

http://mswebs.naist.jp/english/education-and-reserch/1038/

Evaluation of academic performance

1. After their academic performance has been evaluated, students will be informed of the result within three weeks after the completion of lectures via the graduate school website and the bulletin board, etc.
Academic performance can be checked via the automatic certificate issuing machine on the first floor of the NAIST Library.

2. In the event that students wish to object to the results they received, they must submit a "Letter of Objection concerning Evaluation of Academic Performance" (herein referred to as "Letter of Objection") to the Academic Affairs Section of the Educational Affairs Division within 1 month of receiving the results.

（※）A Letter of Objection shall be accepted if deemed as pertaining to one of the following areas.

(1) Cases where it is thought there are obvious mistakes in grading, such as paperwork errors, etc.

(2) Cases where there are obvious doubts concerning academic performance evaluation in relationship to grading standards found in the syllabus, etc.

3. If, after deliberation, the graduate school Educational Affairs Committee (or the equivalent governing organization) finds the written explanation in response to the Letter of Objection to be justified, the response and the results from the committee's deliberation shall be sent to the Academic Affairs Section of the Educational Affairs Division to then be reported in written form to the student in question.

Please see the following website for the form, flowchart, and further information.

○Information concerning objections to academic performance evaluation

https://ad-info.naist.jp/gakusei/gakumu_kankei/seisekituuti/seisekituuti.html

Research Ethics Training Session

1. NAIST offers Research Ethics Training Sessions every year to foster the ethical thinking necessary for researchers and technicians.
These sessions are offered in both Japanese and English.

2. Session times: April 14, 2017 16:50- 18:20 (For Spring students)
October 3, 2017 15:10- 16:40 (For Fall students)

3. Attendance is mandatory for all new students.
Please understand that if you do not successfully complete this session, you may experience some disadvantages during your studies.

Toward Cultivating Globally-Aware Human Resources

The Nara Institute of Science and Technology (NAIST) was selected for the Top Global University Project by the Ministry of Education, Culture, Sports, Science and Technology in September 2014. We promote study abroad programs in cooperation with 85 academic exchange partner institutions in the world including the University of California, Davis. We also promote participation in overseas internship programs and international workshops.

The master's program aims to foster students' abilities to read academic papers and understand lectures and seminars in English. The doctoral program prepares students for giving presentations in English and equips them with the ability to answer questions and handle discussion and challenges. Each graduate school hosts TOEIC tests as well.

Two hundred and thirty three students from 31 countries are studying at NAIST. We offer them an environment where international students from different backgrounds and cultures study with Japanese students so that many of them grow to be globally-aware human resources who have an international mindset, practical communications skills, excellent techniques in research, and areas of expertise.

[Scholarships for Studying Abroad]

Many of the students at NAIST use the following scholarships to study abroad. While students can apply to some of the programs individually, some are offered as part of graduate school programs. Please consult your supervisor or the International Affairs Division if you are considering studying abroad.

1. Support for studying abroad by the Japan Student Services Organization (JASSO) Scholarship
   http://www.jasso.go.jp/ryugaku/study_a/scholarship.html
2. Tobitate! Study Abroad Program JAPAN
   http://www.tobitate.mext.go.jp/
3. Lists of scholarships compiled by JASSO
   http://ryugaku.jasso.go.jp/scholarship/

[On-campus procedures before studying abroad]

In order to study or receive instruction at an academic or research institution overseas, a Study Abroad Request form must be submitted to and approved by the Faculty Council, so please submit this form along with the Course Registration Request for Special Auditing Dispatchment Student or the Application for Special Research Dispatchment Student to the International Affairs Division at least two months before your planned departure. Even if the study abroad program you have chosen does not require a Study Abroad Request form, you must submit an Overseas Travel Notification for emergencies so that your safety can be confirmed in the event of natural disasters, terrorist acts, etc. Please read the "Procedures for Studying Abroad" p.68 for details.

[Visas]

When you decide to travel abroad, please make sure to investigate where you are traveling and whether or not you need a visa to travel there. Also, leave enough time for whatever paperwork or procedures that may be necessary.

Regardless of the length of your stay, you may have to apply for a visa depending on the purpose of your visit. For example, to study in the US an F-1 visa is necessary and students must start preparing for their study abroad (preparing paperwork, obtaining forms and certificates, obtaining a passport, completing an interview, etc.) at least two months prior to their departure date. In France, online registration and application is possible and a visa interview is waived if you will be an exchange student. In this way, paperwork, requirements, and application processes may vary depending on your destination, program details and the agreements related to your studies, so it is necessary to start collecting information from the institution you will be attending and from the appropriate diplomatic agency in advance.

Depending on your destination, there may be punitive measures taken or you may be denied entrance to the country if you have not completed the proper visa application process. If you have any questions concerning the visa process or necessary paperwork, feel free to consult with the International Affairs Division staff.

[Safety and security information before traveling overseas]

When you travel abroad, please make sure that the country is safe to visit by checking the safety and security information for the destination country on the Foreign Ministry's website (overseas safety page).

The Foreign Ministry encourages Japanese nationals who are planning to stay abroad longer than 3 months to submit a Resident Report, and Japanese nationals who are planning to stay less than 3 months to register at 'Tabi-regi', the registration system for Japanese travelers abroad.

Please submit a notice or register with the Foreign Ministry when you go abroad in addition to the on-campus administrative procedures.

Please see the Foreign Ministry's website for details.

Procedures for study/travel abroad

	Official study abroad※		**Travel notification requiring Travel Request**	
Types of dispatchment abroad	Course(s) or instruction at an overseas graduate school or research institution	Double degree program	Educational programs not included in 'Official study abroad' offered in cooperation with NAIST at an overseas graduate school or research institution	Conference/symposium/seminar/etc. attendance
Details	Attending of course(s) or receiving instruction at overseas graduate schools or research institutions	Studies at overseas universities in accordance with double degree program regulations	• Education at an overseas graduate schools or research institutions • Internship at an overseas graduate schools or research institutions (Held as a NAIST educational program)	Attending or presenting at a Conference/symposium/seminar/etc.
Duration	In principle, 3 months or more		In principle, less than 3 months	
Necessary paperwork	**• Study Abroad Request** **• Course Registration Request for Special Auditing Dispatchment Student** (For students who will attend classes) **• Application for Special Research Dispatchment Student** (For students who will receive instruction)	**Study Abroad Request**	**Overseas Travel Notification**	**Overseas Travel Notification**
Statistical status	Study abroad student	Study abroad student	Study abroad student	—
University overseas travel insurance	Eligible	Eligible	Eligible	Eligible
Student personal accident Insurance◆	Eligible	Eligible	Eligible	Eligible

※Article 48 of the Student Regulations states that a student wanting to study abroad at an overseas graduate school or research institution must receive the President's permission.

◆Personal Accident Insurance for Students Pursuing Education and Research (PAS)

For private travel

1: If you will leave your residence for a period of time for private travel , please give your emergency contact information to your family, relatives, friends, research lab, etc.
2: If you will travel overseas privately for three months or more, you must submit the Leave of Absence Request and Overseas Travel Notification forms at least two weeks before departure.

English Language Education

English proficiency is essential for Students studying advanced science and technology who are expected to be able to communicate internationally. To help students communicate effectively in English, the Graduate School of Materials Science offers a variety of English language subjects and extracurricular programs.

Subjects

The following subjects comprise the base of the English language education:

Master's Course

- Materials Science English I—Writing Skills
- Materials Science English II A—Presentation Skills
- Materials Science English III A—Discussion Skills

Doctoral Course

- Materials Science English II B—Presentation Skills
- Materials Science English III B—Discussion Skills

Materials Science English I is a required subject in the first year of the Master's Course. The focus of this course is on writing skills and the research article. All first-year Master's students are divided into smaller groups based on TOEIC scores—in this way students are able to work together with their classmates at an appropriate level. This subject is not included in the Doctoral Course, however Doctoral students wishing to improve their English writing skills are most welcome to audit this course (i.e., not for credit).

Materials Science English II A and *B* are offered to Master's Course and Doctoral Course students, respectively. Content, and evaluation for both Materials Science English II A and B are exactly the same, with Master's and Doctoral students taking the same lectures together. The focus is on presentation skills. Students are given opportunity to improve oral presentation of their own research in English. The subject is usually scheduled in autumn in order to help students prepare for their Mid-Term Evaluation. Lectures are given in English with support for all levels of English proficiency.

Materials Science English III A and *B* are the same subject, offered to both Master's and Doctoral Course students, respectively. The focus of this subject is on discussion skills with various topics are covered, such as inter-cultural communication, and language learning. Lectures given all in English are designed to help students participate actively and effectively in discussions in English. This subject is highly recommended as preparation for students joining the UC Davis English Training Program.

Extracurricular Programs

TOEIC

During the summer, a short, not-for-credit, TOEIC Preparation Course is offered. All students, Master's and Doctoral, are encouraged to join. Staff and faculty are also warmly welcomed, as are students from the Biological and Information Science Graduate Schools.

Students can check their progress in English proficiency by taking TOEIC IP tests in spring and autumn. Students in the first academic year of the Master's Course are required to take the tests. Students in the second academic year of the Master's Course and students in the Doctoral Course are also strongly encouraged to take the tests.

Self-Access Writing Center (SAWC)

The *Self-Access Writing Center*, located on the second floor of Building E (E206), is freely available to all students, faculty and staff, and offers a wide range of English learning materials for anyone wishing to improve their English level at their own pace. The SAWC is open from 9:00 to 17:00 Monday to Friday. An English language specialist is usually available in the SAWC to offer advice on study techniques and the various learning materials.

English Proofreading

The Graduate School of Materials Science provides opportunity for students, faculty and staff to have their English proofread by an English specialist. This service may be used for manuscripts, abstracts, presentations, speeches, letters, emails, etc. You are free to bring your English documents to the SAWC (E206) where an English language specialist is usually available to offer advice and revisions. Alternatively, English documents can be sent by email and checked at a later date.

E-Learning

ALC NetAcademy 2 is an online English learning website. It is accessible free-of-charge, 24/7 from the NAIST website, or from the following URL: http://itcw3.naist.jp/NetAcademy/NetAcademy.html. Note that in order to access NetAcademy, you must be logged in to NAIST network. Students are especially encouraged to try the following courses:

技術英語＜基礎＞コース
技術英語パワーアップコース

Word Engine is another online English learning website recommended to test and develop your English vocabulary. Students can apply for an access card from the SAWC and use this website free-of-charge.

English Conversation Groups

A variety of groups are open to students wishing to communicate more in English. Details on these various groups are available from the SAWC, and displayed on posters around the school.

List of subjects and faculty members in charge for the Graduate School of Information Science in academic year 2017

Category	Subject	Domain	Type	Subject Number	Number of credi	Faculty member in charge	Number of classes per week				Total number of classes	English subject	Remarks
							Ⅰ	Ⅱ	Ⅲ	Ⅳ			
Basic Subjects	Computer System		L	000101	1	Yasuhiko Nakashima, Keiichi Yasumoto, Yutaka Arakawa, Manato Fujimoto	4		4		15		Common subject for all schools. Quarter III is intended for students admitted in autumn.
	Algorithm		L	000102	1	Michiko Inoue, Fukuhito Ooshita,Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji, Duong Quang Thang	2		2		15		Common subject for all schools. Quarter III is intended for students admitted in autumn.
	Introduction to Biological Science		L	000202	1	Hisaji Maki	2				15		Common subject for all schools.
	Foundation of Materials Science		L	000301	1	Hiroyuki Katsuki		2			15		Common subject for all schools.
	Information Theory		L	120001	1	(Yuichi Kaji)		2			15		
	Introduction to Formal Language Theory		L	120002	1	Minoru Ito	2				15		
	Introductory Programming Course I		P	120003	1	Takashi Ishio, Akinori Ihara	4				30		
	Introductory Programming Course II		P	120004	1	Kenichi Matsumoto, Hideaki Hata		4			30		
	Principles of Signal Processing		L	120005	1	Hirokazu Kato, Takafumi Taketomi	2				15		
	Numerical Methods		L	120006	1	Hirokazu Kato, Takafumi Taketomi	2				15		
	Applied Analysis		L	120007	1	Yoshinobu Sato, Yoshito Otake	2				15		
	Mathematics for Optimization		L	120008	1	Kenji Sugimoto	2				15		
	Multivariate Analysis		L	120009	1	—	—				15		N/A in this academic year
	Basic Data Analysis		L	120010	1	Shigehiko Kanaya	2				15		
	Introduction to Stochastic Processes		L	120011	1	Shoji Kasahara		2			15		
	Combinatorics		L	120012	1	(Kenji Maruo)	2				15		
	Algebraic Structures		L	120013	1	(Kenji Maruo)			2		15		
Specialized Subjects in Information Science	Theory of Computation I	C	L	130001	1	Minoru Ito		2			15		
	Theory of Computation II	C	L	130002	1	Michiko Inoue, Fukuhito Ooshita		2			15	○	
	Fandamental of High Performance Computiong	C	L	130003	1	Yasuhiko Nakashima, Takashi Nakada		2			15		
	Advanced Algorithm Design	C	L	130004	1	Fukuhito Ooshita, Michiko Inoue		2			15		
	Distributed Systems and Middleware	C	L	130005	1	Keiichi Yasumoto	2				15	○	
	Software Design	C	L	130006	1	Hajimu Iida, (Norihiro Yoshida), Eunjong Choi	Intensive lectures				15		
	System Requirement Engineering	C	L	130007	1	(Toshinori Takai), (Yasushi Tanaka), (Masafumi Katahira), (Naoki Ishihama), (Shinji Kawaguchi)	Intensive lectures				15		
	Virtual Systems Infrastracture	C	L	130008	1	Kohei Ichikawa, Yasuhiro Watashiba				2	15	○	
	Software Engineering I	C	L	131009	1	Kenichi Matumoto, Akinori Ihara	2				15		
	Software Engineering II	C	L	132010	1	Takashi Ishio, Hideaki Hata			2		15		
	Speech Processing	M	L	130011	1	Satoshi Nakamura, Koichiro Yoshino, (Shinnosuke Takamichi), Sakti Sakriani Watiasri			2		15		
	Artificial Intelligence	M	L	130012	1	Masashi Shimbo, Hiroshi Noji	2				15	○	
	Ambient Intelligence	M	L	130013	1	(Norihiro Hagita), Masayuki Kanbara			2		15	○	
	Natural Language Processing	M	L	130014	1	Yuji Matsumoto, (Hideki Kashioka), Hiroyuki Shindo			2		15		
	Computer Vision Ⅰ	M	L	131015	1	Tomokazu Sato			2		15	○	
	Computer Vision Ⅱ	M	L	132016	1	Yasuhiro Mukaigawa			2		15		
	Computer Graphics	M	L	130017	1	Takuya Funatomi	2				15	○	
	Virtual Reality	M	L	130018	1	Kiyoshi Kiyokawa				2	15		
	Digital Image Processing	M	L	130019	1	Norihiko Kawai		2			15		
	Coding Theory	C	L	130020	1	(Yuichi Kaji)				2	15	○	
	Information Network I	C	L	131021	2	Youki Kadobayashi, Doudou Fall	4				30	○	
	Information Network II	C	L	132022	2	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, (Atsuo Inomata)			4		30		
	Wireless Communication Systems	M	L	130023	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang		2			15		
	Signal Detection Theory	M	L	130024	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			2		15	○	
	Network Simulation	M	L	130025	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			2		15		
	Sequential Data Modeling	M	L	130026	1	(Katsuhito Sudoh), Koichiro Yoshino, Sakti Sakriani Watiasri		2			15	○	
	Human Computer Interaction	M	L	130027	1	Christian Sandor, Alexander Plopski				2	15	○	
	Pattern Recognition	M	L	130028	1	Takuya Funatomi, Masayuki Kanbara		2			15		
	Game Theory	A	L	130029	1	Masahiro Sasabe		2			15		
	Machine Lerning and Intelligent Control	A	L	131030	1	Takamitsu Matsubara		2			15	○	
	Model-base Control	A	L	132031	1	Kenji Sugimoto			2		15		
	Robotics I	A	L	131032	1	Tsukasa Ogasawara, Jun Takamatsu	2				15		
	Robotics II	A	L	132033	1	Tsukasa Ogasawara, Jun Takamatsu, (Yoshio Matsumoto), (Mitsunori Tada)			2		15	○	
	Mathematical Modeling	A	L	130034	1	Kazushi Ikeda, Hiroaki Sasahi		2			15		

Specialized Subjects in Information Science	Computational Neuroscience	A	L	130035	1	Junichiro Yoshimoto, Tomoya Tamei, (Jun Morimoto), (Kenji Doya)			2		15	○	
	Ubiquitous Information Processing	C	L	130036	1	Yutaka Arakawa	2				15		
	Bio-Imaging	A	L	130037	1	(Tadao Sugiura), (Hidehiro Iida), (Tsutomu Zeniya)			2		15		
	Systems Biology I	A	L	130038	1	Shigehiko Kanaya, Md.Altaf-Ul-Amin	2				15	○	
	Systems Biology II	A	L	130039	1	Shigehiko Kanaya, Md.Altaf-Ul-Amin			2		15		
	Biomedical Image Analysis	A	L	130040	1	Yoshinobu Sato				2	15	○	
	Biomedical Media Informatics	A	L	130041	1	Yoshito Otake		2			15		
	Big Data Analytics	G	L	130042	1	Satoshi Nakamura, Yu Suzuki, Koichiro Yoshino, Hiroki Tanaka, (Michiaki IWAZUME), (Nobuyuki Ishikawa)			2		15		
	Information Security & Our Society	C	L	130043	2	(Jun Murai), Youki Kadobayashi			2	2	30	○	
	Data Mining	A	L	130044	1	Md.Altaf-Ul-Amin			2		15		
	Mobile Computing	C	L	130045	1	Naoki Shibata		2			15	○	
	Advanced Cutting-edge Research Seminar I	G	L	130046	1	Tomoya Kawakami, Yasuhiro Watashiba, Hiroshi Noji, Koichiro Yoshino, Duong Quang Thang, Alexander Plopski, Taisuke Kobayashi, Jun Kawahara, Hiroaki Sasaki, Huang Ming				2	15	○	10 classes will be offered. (1 credit for 2 classes)
	Advanced Cutting-edge Research Seminar II	G	L	130047	1	—			—		15	○	N/A in this academic year
	Advanced Cutting-edge Research Seminar III	G	L	130048	1	Tomoya Kawakami, Yasuhiro Watashiba, Hiroshi Noji, Koichiro Yoshino, Duong Quang Thang, Alexander Plopski, Taisuke Kobayashi, Jun Kawahara, Hiroaki Sasaki, Huang Ming				2	15	○	10 classes will be offered. (1 credit for 2 classes)
	Advanced Cutting-edge Research Seminar IV	G	L	130049	1	—			—		15	○	N/A in this academic year
	Project Practice I	G	P	130050	2	Faculty members in charge of respective themes and non-NAIST instructors		Different for respective themes			60		A few classes will be offered.
	Project Practice II	G	P	130051	2	—			—		60		N/A in this academic year
	Project Practice III	G	P	130052	2	Faculty members in charge of respective themes and non-NAIST instructors		Different for respective themes			60		A few classes will be offered.
	Project Practice IV	G	P	130053	2	—			—		60		N/A in this academic year
	Exercise in Practical Software Development I	G	P	130054	2	Hajimu Iida, Yasuhiro Watashiba, Eunjong Choi, Futoshi Yokota			2		30		
	Exercise in Practical Software Development II	G	P	130055	2	—			—		30		N/A in this academic year
	Theory of Advanced IT	G	L	130056	1	—			—		15		N/A in this academic year
	Studio of Advanced IT I	G	P	130057	2	Jun Takamatsu, (Yasushi Tanaka), (Toshinori Takai)		Different for respective themes			30		
	Studio of Advanced IT II	G	P	130058	2	Jun Takamatsu, (Yasushi Tanaka), (Toshinori Takai)		Different for respective themes			30		
	Introduction to Advanced Robot Technology	A	L	130059	1	—			—		15		N/A in this academic year
	Advanced Robot Design	A	P	130060	2	Jun Takamatsu, Masayuki Kanbara, Takamitsu Matsubara, Ming Ding		Intensive lectures			60		
	Advanced Robot Development Theory I	A	P	131061	1	Jun Takamatsu, Ming Ding		Intensive lectures			30		
	Advanced Robot Development Theory II	A	P	132062	1	Jun Takamatsu, Ming Ding, (Akihiko Yamaguchi)		Intensive lectures			30		
	Lecture of Information Security Management Literacy I	C	L	130063	1	(Hiromitsu Takagi), (Takashi Matsumoto), (Tetsutaro Uehara)		Intensive lectures			15		(at Osaka Univ. Nakanoshima Center)
	Lecture of Information Security Management Literacy II	C	L	130064	1	Kazutoshi Fujikawa, (Kazumasa Utashiro), (Atsuo Inomata), (Hisamichi Okamura), (Tomohiko Yamakawa)		Intensive lectures			15		(at Osaka Univ. Nakanoshima Center)
	Exercise for Information Security PBL A	C	P	130065	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)		Intensive lectures			15		
	Exercise for Information Security PBL B	C	P	130066	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)		Intensive lectures			15		
	Exercise for Information Security PBL C	C	P	130067	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda		Intensive lectures			15		
	Exercise for Information Security PBL D	C	P	130068	1	Youki Kadobayashi, Takeshi Okuda, (Yoichi Shinoda), (Shinsuke Miwa)		Intensive lectures			15		
	Exercise for Information Security PBL E	C	P	130069	1	Kazutoshi Fujikawa, Atsuo Inomata, Takeshi Okuda		Intensive lectures			15		
	Exercise for Information Security PBL F	C	P	130070	1	(Atsuo Inomata), Takeshi Okuda, (Hideaki Sone), Yuichi Hayashi, (Naofumi Honma)		Intensive lectures			15		
	Exercise for Information Security PBL G	C	P	130071	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)		Intensive lectures			15		
	Hardware Security	C	L	130072	1	Yuichi Hayashi		2			15		
General Subjects	Commentaries on Science and Technology			000201	1	Faculty members in charge		2			15		Common subject for all schools.
	Science Communication			000203	1	Faculty members in charge			4		15		Common subject for all schools.
	Skills for English Presentation I			110001	1	(David Sell)	2				15	○	Tuesday and Friday (Based on TOEIC score)
	Methods of English Communication I			110002	1	Mike Barker			2		15	○	
	Methods of English Communication II			111003	1	Mike Barker				2	15	○	
	Advanced Scientific Writing			112004	1	Mike Barker		2			15	○	
	Skills for English Presentation II			110005	1	Mike Barker	2				15	○	
	Project Management for Research			110006	1	Mike Barker		2			15	○	
	Literature Search			110007	1	Mike Barker			2		15	○	
	Digital Media			110008	1	Mike Barker				2	15	○	

General Subjects	Intercultural Communication	110009	1	(David Sell)				2	15	○	Advanced Specific Field Seminar II
	Intellectual Property Rights	110010	1	Kozo Kubo			2		15	○	
	Global Entrepreneur Ⅰ	111011	1	Faculty members in charge	Intensive lectures				15		
	Global Entrepreneur Ⅱ	111012	1	Faculty members in charge	Intensive lectures				15		
	Global Entrepreneur Ⅲ	112013	1	Faculty members in charge	Intensive lectures				15		
	Global Entrepreneur Ⅳ	112014	1	Faculty members in charge	Intensive lectures				15		
	Global Entrepreneur Ⅴ	112015	1	Faculty members in charge	Intensive lectures				15		
	Philosophy of Science	000103	1	(Hiroshi Nakao)		4			15		Common subject for all schools.
	Technology and Professional Ethics	000104	1	(Shushi Ueda)			2		15	○	Common subject for all schools.
	Information Technology for Environmental Issues	110016	1	—	—				15		N/A in this academic year
	Japanese Culture	000105	2	(Adarsh Bala Sharma)	2	2	2	2	30	○	Common subject for all schools.
	Japanese Class for Begginers Ⅰ	000303	2	(Mikiko Iwasaki), (Noriko Kunii), (Akiyo Kasai)			4		30		Common subject for all schools. For students from abroad
	Japanese Class for Begginers Ⅱ(1)	000204	1	(Noriko Nakao)			2		15		Common subject for all schools. For students from abroad
	Japanese Class for Begginers Ⅱ(2)	000205	1	(Noriko Nakao)		2			15		Common subject for all schools. For students from abroad
	Japanese Class for Begginers Ⅲ(1)	000206	1	(Masako Hashimoto)			2		15		Common subject for all schools. For students from abroad
	Japanese Class for Begginers Ⅲ(2)	000207	1	(Masako Hashimoto)		2			15		Common subject for all schools. For students from abroad
	Academic Volunteer Ⅰ	110017	1	Faculty members in charge	Different for respective themes				30		
	Academic Volunteer Ⅱ	110018	1	Faculty members in charge	Different for respective themes				30		
Advanced Topics in Information Science	Advanced Computing Architecture Ⅰ	140001	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Different for respective subjects						
	Advanced Computing Architecture Ⅱ	140002	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Different for respective subjects						
	Advanced Computing Architecture Ⅲ	140003	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Different for respective subjects						
	Advanced Computing Architecture Ⅳ	140004	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Different for respective subjects						
	Advanced Dependable System Ⅰ	140005	1	Michiko Inoue, Fukuhito Ooshita	Different for respective subjects						
	Advanced Dependable System Ⅱ	140006	1	Michiko Inoue, Fukuhito Ooshita	Different for respective subjects						
	Advanced Dependable System Ⅲ	140007	1	Michiko Inoue, Fukuhito Ooshita	Different for respective subjects						
	Advanced Dependable System Ⅳ	140008	1	Michiko Inoue, Fukuhito Ooshita	Different for respective subjects						
	Advanced Ubiquitous Computing Systems Ⅰ	140009	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa, Manato Fujimoto	Different for respective subjects						
	Advanced Ubiquitous Computing Systems Ⅱ	140010	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa, Manato Fujimoto	Different for respective subjects						
	Advanced Ubiquitous Computing Systems Ⅲ	140011	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa, Manato Fujimoto	Different for respective subjects						
	Advanced Ubiquitous Computing Systems Ⅳ	140012	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa, Manato Fujimoto	Different for respective subjects						
	Advanced Mobile Computing Ⅰ	140013	1	Minoru Ito, Naoki Shibata	Different for respective subjects						
	Advanced Mobile Computing Ⅱ	140014	1	Minoru Ito, Naoki Shibata	Different for respective subjects						
	Advanced Mobile Computing Ⅲ	140015	1	Minoru Ito, Naoki Shibata	Different for respective subjects						
	Advanced Mobile Computing Ⅳ	140016	1	Minoru Ito, Naoki Shibata	Different for respective subjects						
	Advanced Software Engineering Ⅰ	140017	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Different for respective subjects						
	Advanced Software Engineering Ⅱ	140018	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Different for respective subjects						
	Advanced Software Engineering Ⅲ	140019	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Different for respective subjects						
	Advanced Software Engineering Ⅳ	140020	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Different for respective subjects						
	Advanced Software Design and Analysis Ⅰ	140021	1	Hajimu Iida, Kohei Ichikawa	Different for respective subjects						
	Advanced Software Design and Analysis Ⅱ	140022	1	Hajimu Iida, Kohei Ichikawa	Different for respective subjects						
	Advanced Software Design and Analysis Ⅲ	140023	1	Hajimu Iida, Kohei Ichikawa	Different for respective subjects						
	Advanced Software Design and Analysis Ⅳ	140024	1	Hajimu Iida, Kohei Ichikawa	Different for respective subjects						
	Advanced Cyber Resilience Ⅰ	140025	1	Youki Kadobayashi	Different for respective subjects						
	Advanced Cyber Resilience Ⅱ	140026	1	Youki Kadobayashi	Different for respective subjects						
	Advanced Cyber Resilience Ⅲ	140027	1	Youki Kadobayashi	Different for respective subjects						
	Advanced Cyber Resilience Ⅳ	140028	1	Youki Kadobayashi	Different for respective subjects						
	Advanced Information Security Engineering Ⅰ	140029	1	Yuichi Hayashi	Different for respective subjects						
	Advanced Information Security Engineering Ⅱ	140030	1	Yuichi Hayashi	Different for respective subjects						
	Advanced Information Security Engineering Ⅲ	140031	1	Yuichi Hayashi	Different for respective subjects						
	Advanced Information Security Engineering Ⅳ	140032	1	Yuichi Hayashi	Different for respective subjects						
	Advanced Internet Architecture and Systems Ⅰ	140033	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Different for respective subjects						
	Advanced Internet Architecture and Systems Ⅱ	140034	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Different for respective subjects						
	Advanced Internet Architecture and Systems Ⅲ	140035	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Different for respective subjects						
	Advanced Internet Architecture and Systems Ⅳ	140036	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Different for respective subjects						
	Advanced Computational Linguistics Ⅰ	140037	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Different for respective subjects						
	Advanced Computational Linguistics Ⅱ	140038	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Different for respective subjects						
	Advanced Computational Linguistics Ⅲ	140039	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Different for respective subjects						
	Advanced Computational Linguistics Ⅳ	140040	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Different for respective subjects						
	Advanced Augmented Human Communication Ⅰ	140041	1	Satoshi Nakamura	Different for respective subjects						
	Advanced Augmented Human Communication Ⅱ	140042	1	Satoshi Nakamura	Different for respective subjects						

Advanced Topics in Information Science	Advanced Augmented Human Communication Ⅲ	140043	1	Satoshi Nakamura	Different for respective subjects					
	Advanced Augmented Human Communication Ⅳ	140044	1	Satoshi Nakamura	Different for respective subjects					
	Advanced Network Systems Ⅰ	140045	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	Different for respective subjects					
	Advanced Network Systems Ⅱ	140046	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	Different for respective subjects					
	Advanced Network Systems Ⅲ	140047	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	Different for respective subjects					
	Advanced Network Systems Ⅳ	140048	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	Different for respective subjects					
	Advanced Interactive Media Design Ⅰ	140049	1	Hirokazu Kato, Christian Sandor, Takafumi Taketomi, Alexander Plopski	Different for respective subjects					
	Advanced Interactive Media Design Ⅱ	140050	1	Hirokazu Kato, Christian Sandor, Takafumi Taketomi, Alexander Plopski	Different for respective subjects					
	Advanced Interactive Media Design Ⅲ	140051	1	Hirokazu Kato, Christian Sandor, Takafumi Taketomi, Alexander Plopski	Different for respective subjects					
	Advanced Interactive Media Design Ⅳ	140052	1	Hirokazu Kato, Christian Sandor, Takafumi Taketomi, Alexander Plopski	Different for respective subjects					
	Advanced Optical Media Interface Ⅰ	140053	1	Yasuhiro Mukaigawa	Different for respective subjects					
	Advanced Optical Media Interface Ⅱ	140054	1	Yasuhiro Mukaigawa	Different for respective subjects					
	Advanced Optical Media Interface Ⅲ	140055	1	Yasuhiro Mukaigawa	Different for respective subjects					
	Advanced Optical Media Interface Ⅳ	140056	1	Yasuhiro Mukaigawa	Different for respective subjects					
	Cybernetics and Reality Engineering Ⅰ	140057	1	Kiyoshi Kiyokawa	Different for respective subjects					
	Cybernetics and Reality Engineering Ⅱ	140058	1	Kiyoshi Kiyokawa	Different for respective subjects					
	Cybernetics and Reality Engineering Ⅲ	140059	1	Kiyoshi Kiyokawa	Different for respective subjects					
	Cybernetics and Reality Engineering Ⅳ	140060	1	Kiyoshi Kiyokawa	Different for respective subjects					
	Advanced Ambient Intelligence Ⅰ	140061	1	(Norihiro Hagita)	Different for respective subjects					
	Advanced Ambient Intelligence Ⅱ	140062	1	(Norihiro Hagita)	Different for respective subjects					
	Advanced Ambient Intelligence Ⅲ	140063	1	(Norihiro Hagita)	Different for respective subjects					
	Advanced Ambient Intelligence Ⅳ	140064	1	(Norihiro Hagita)	Different for respective subjects					
	Advanced Robotics Ⅰ	140065	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Different for respective subjects					
	Advanced Robotics Ⅱ	140066	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Different for respective subjects					
	Advanced Robotics Ⅲ	140067	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Different for respective subjects					
	Advanced Robotics Ⅳ	140068	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Different for respective subjects					
	Advanced Intelligent System Control Ⅰ	140069	1	Kenji Sugimoto, Takamitsu Matsubara, Taisuke Kobayashi, Masaki Ogura	Different for respective subjects					
	Advanced Intelligent System Control Ⅱ	140070	1	Kenji Sugimoto, Takamitsu Matsubara, Taisuke Kobayashi, Masaki Ogura	Different for respective subjects					
	Advanced Intelligent System Control Ⅲ	140071	1	Kenji Sugimoto, Takamitsu Matsubara, Taisuke Kobayashi, Masaki Ogura	Different for respective subjects					
	Advanced Intelligent System Control Ⅳ	140072	1	Kenji Sugimoto, Takamitsu Matsubara, Taisuke Kobayashi, Masaki Ogura	Different for respective subjects					
	Advanced Large-Scale Systems Management Ⅰ	140073	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara	Different for respective subjects					
	Advanced Large-Scale Systems Management Ⅱ	140074	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara	Different for respective subjects					
	Advanced Large-Scale Systems Management Ⅲ	140075	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara	Different for respective subjects					
	Advanced Large-Scale Systems Management Ⅳ	140076	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara	Different for respective subjects					
	Advanced Mathematical Informatics Ⅰ	140077	1	Kazushi Ikeda	Different for respective subjects					
	Advanced Mathematical Informatics Ⅱ	140078	1	Kazushi Ikeda	Different for respective subjects					
	Advanced Mathematical Informatics Ⅲ	140079	1	Kazushi Ikeda	Different for respective subjects					
	Advanced Mathematical Informatics Ⅳ	140080	1	Kazushi Ikeda	Different for respective subjects					
	Advanced Imaging-based Computational Biomedicine Ⅰ	140081	1	Yoshinobu Sato, Yoshito Otake	Different for respective subjects					
	Advanced Imaging-based Computational Biomedicine Ⅱ	140082	1	Yoshinobu Sato, Yoshito Otake	Different for respective subjects					
	Advanced Imaging-based Computational Biomedicine Ⅲ	140083	1	Yoshinobu Sato, Yoshito Otake	Different for respective subjects					
	Advanced Imaging-based Computational Biomedicine Ⅳ	140084	1	Yoshinobu Sato, Yoshito Otake	Different for respective subjects					
	Advanced Computational Systems Biology Ⅰ	140085	1	Shigehiko Kanaya	Different for respective subjects					
	Advanced Computational Systems Biology Ⅱ	140086	1	Shigehiko Kanaya	Different for respective subjects					
	Advanced Computational Systems Biology Ⅲ	140087	1	Shigehiko Kanaya	Different for respective subjects					
	Advanced Computational Systems Biology Ⅳ	140088	1	Shigehiko Kanaya	Different for respective subjects					
	Seminar I	140101	1	Faculty members in charge of courses selected by students	2				15		
	Seminar II	140102	1	Faculty members in charge of courses selected by students	2				15		
	Research Work	150001	4	Faculty members in charge of courses selected by students							
	Theme Research	150002	4	Faculty members in charge of courses selected by students							
Doctoral Course	International Communications A	160001	1	Mike Barker, (David Sell)	2	2	2	2	15	○	
	International Communications B	160002	1	Mike Barker, (David Sell)	2	2	2	2	15	○	
	International Practice A	160003	2	Faculty members in charge of courses selected by students	Different for respective themes				30	○	10 classes will be offered. (1credit for 2 classes)
	International Practice B	160004	2	Faculty members in charge of courses selected by students	Different for respective themes				30	○	10 classes will be offered. (1credit for 2 classes)
	International Practice C	160005	2	Faculty members in charge of courses selected by students	Different for respective themes				30	○	10 classes will be offered. (1credit for 2 classes)
	Advanced Specific Field Seminar I	160006	1	—	—				15	○	N/A in this academic year
	Advanced Specific Field Seminar II	160007	1	(David Sell)				2	15	○	
	Advanced Cutting-edge Research Seminar Ⅰ	160008	1	Faculty members in charge				2	15	○	
	Advanced Cutting-edge Research Seminar Ⅱ	160009	1	Faculty members in charge				2	15	○	

Doctoral Course	Advanced Cutting-edge Research Seminar Ⅲ	160010	1	Faculty members in charge				2	15	○	
	Advanced Cutting-edge Research Seminar Ⅳ	160011	1	Faculty members in charge				2	15	○	
	Advanced Project Management	160012	2	Faculty members in charge of courses selected by students	Offered as necessary				30		
	Research Status Hearing	160013	2	Faculty members in charge of courses selected by students	Offered as necessary				30		
	Doctoral Research Ⅰ	170001	3	Faculty members in charge of courses selected by students	Offered as necessary				45		
	Doctoral ResearchⅢ	170003	3	Faculty members in charge of courses selected by students	Offered as necessary				45		
	Doctoral Research Ⅴ	170005	3	Faculty members in charge of courses selected by students	Offered as necessary				45		
	Doctoral Research Ⅱ	170002	3	Faculty members in charge of courses selected by students			Offered as necessary		45		
	Doctoral ResearchⅣ	170004	3	Faculty members in charge of courses selected by students			Offered as necessary		45		
	Doctoral ResearchⅥ	170006	3	Faculty members in charge of courses selected by students			Offered as necessary		45		

・“L” in the “Type” column stands for lectures, “P” for practices.

・“C” in the “Domain” column stands for the computer science domain, “M” for the media informatics domain, “A” for the system informatics domain, and “G” for common subjects in different domain.

・ Faculty members in charge shown in parentheses are part-time instructors. The detailed schedule for intensive lectures can be found in the electronic syllabus.

・Students can take Advanced Topics in Information Science provided by a laboratory different from the one they belong to though the credits of those subjects shall not count as credits toward completion. See the electronic syllabus for the information on whether each Advanced Topics in Information Science can be taken by students belonging to different laboratories.

Ⅵ List of subjects and faculty members in charge for the Graduate School of Biological Sciences in academic year 2017

Master's Course

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Common	Commentaries on Science and Technology	000201	1	Faculty members in charge	Autumn semester in first academic year	15	Common subujects for all graduate schools
	Computer System	000101	1	Y.Nakashima	Spring semester	15	Common subujects for all graduate schools
	Algorithm	000102	1	Inoue etc.	Spring semester	15	Common subujects for all graduate schools
	Foundation of Materials Science	000301	1	Katsuki,Aratani	Spring semester	15	Common subujects for all graduate schools
	Science Communication	000203	1	Bessho etc.	Autumn semester	15	Common subujects for all graduate schools
	Philosophy of Science	000103	1	(Nakao)	Spring semester	15	Common subujects for all graduate schools
	Technology and Professional Ethics	000104	1	(Ueda)	Autumn semester	15	Common subujects for all graduate schools
	Introduction to Biological Sciences	000202	1	H.Maki etc.	Spring semester	15	Common subujects for all graduate schools
General	Global Entrepreneur Ⅰ	111011	1	Faculty members in charge	Intensiv lectures	15	Subject in Information Science
	Global Entrepreneur Ⅱ	111012	1	Faculty members in charge	Intensiv lectures	15	Subject in Information Science
	Global Entrepreneur Ⅲ	112013	1	Faculty members in charge	Intensiv lectures	40	Subject in Information Science
	Global Entrepreneur Ⅳ	112014	1	Faculty members in charge	Intensiv lectures	15	Subject in Information Science
	Global Entrepreneur Ⅴ	112015	1	Faculty members in charge	Intensiv lectures	25	Subject in Information Science
	Professional English I	210001	1	McAleese	Spring semester in first academic year	15	
	Professional English II	210002	1	McAleese	Autumn semester in first academic year	15	
	Professional English III	210003	1	McAleese	Autumn semester in second academic year	15	
	Communication Strategies	210004	1	McAleese	Autumn semester	15	
	Communication Quality through Phonology	210005	1	McAleese	Spring semester	15	
	Logic in Scientific Discovery	210006	1	Inagaki	Autumn semester	15	
	Social Life Science	210007	1	Bessho	First academic year	15	
	Advanced Genome Science and Technology	210008	1	Bessho	First academic year	15	
Basic	Introduction of Current Biology	220001	1	Hashimoto etc.	Spring semester in first academic year	24	
	Practical Biology for Advanced ScienceI	220002	1	Akiyama etc.	Spring semester in first academic year	15	
	Practical Biology for Advanced ScienceII	220003	1	Kimata etc.	Spring semester in first academic year	15	
	Basic Bioscience Seminar I	220004	1	Demura etc.	Spring semester in first academic year	15	
	Basic Bioscience Seminar II	220005	1	Komai etc.	Spring semester in first academic year	15	
	Microbial Biotechnology	220006	1	Takagi etc.	Spring semester in first academic year	15	
	Environmental Plant Science	220007	1	Nakajima etc.	Spring semester in first academic year	15	
	Biomedical Sciences	220008	1	Kato etc.	Spring semester in first academic year	15	
	Bioinformatics	220009	1	Bessho etc.	Spring semester in first academic year	15	
	Practical Bioscience Seminar I	220010	1	Kohno etc.	Spring semester in first academic year	15	
	Practical Bioscience Seminar II	220011	1	H.Maki etc.	First academic year	15	
	Bioexpart Seminar for Research Project	220012	1	Bessho etc.	Autumn semester in first academic year	15	
	Frontier Bioscience Seminar for Research Project	220013	1	Demura etc.	Autumn semester in first academic year	15	
Special	Advanced Lecture in Developmental Biology	230001	1	Bessho etc.	Spring semester	15	
	Bio-industrial Technology	230002	1	Takagi etc.	Spring semester in first academic year	15	
	Practice in Bio-industrial Technology	230003	1	Takagi etc.	Spring semester in first academic year	15	N/A in this academic year
	Topics in Animal Science	230004	1	Isotani etc.	First and Second academic year	15	
	Frontiers of Plant Sciences	230005	1	Itoh etc.	First and Second academic year	15	
	Advanced Systems Biology	230006	1	Inagaki etc.	First and Second academic year	15	
	Lecture of intellectual property right	230007	1	Kubo	Autumn semester	15	
	Topics in Bioinformatics	230008	1	Bessho	Autumn semester	15	
	Bio-Imaging	130037	1	(Sugiura) etc.	Autumn semester	15	Subject in Information Science
	Systems Biology II	130039	1	Kanaya etc.	Autumn semester	15	Subject in Information Science
	International Forefront in Bioscience I	230009	1	Shiozaki etc.	First and Second academic year	15	
	International Forefront in Bioscience II	230010	1	Shiozaki etc.	First and Second academic year	15	
	Frontier Bioscience Tutorial	230011	1	Demura etc.	Second academic year	15	

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Seminar I		240001	2	Faculty members of assigned laboratory	Spring semester in first academic year	60	
Seminar II		240002	2	Faculty members of assigned laboratory	Autumn semester in first academic year	60	
Seminar III		240003	2	Faculty members of assigned laboratory	Spring semester in second academic year	60	
Seminar IV		240004	2	Faculty members of assigned laboratory	Autumn semester in second academic year	60	
Research Experiment I		240005	3	Faculty members of assigned laboratory	Spring semester in first academic year	90	
Research Experiment II		240006	3	Faculty members of assigned laboratory	Autumn semester in first academic year	90	
Research Experiment III		240007	3	Faculty members of assigned laboratory	Spring semester in second academic year	90	
Research Experiment IV		240008	3	Faculty members of assigned laboratory	Autumn semester in second academic year	90	
Thesis		250001	2	Faculty members of assigned laboratory	First and Second academic year		
Rsearch on Biological Subjects I		240009	2	Faculty members of assigned laboratory	Spring semester in first academic year	60	
Research on Biological Subjects II		240010	2	Faculty members of assigned laboratory	Autumn semester in first academic year	60	
Research on Biological Subjects III		240011	2	Faculty members of assigned laboratory	Spring semester in second academic year	60	
Research on Biological Subjects Ⅳ		240012	2	Faculty members of assigned laboratory	Autumn semester in second academic year	60	
Project Report		250002	2	Faculty members of assigned laboratory	First and Second academic year		

Lectures in charge (shown in parentheses) are part-time lectures

List of subjects and faculty members in charge for the Graduate School of Biological Sciences in academic year 2017

International program for master course

Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Common	Japanese Class for Beginners I	000303	2	(Iwasaki etc.)	Autumn semester in first academic year	30	Common subjects for all graduate schools
	Japanese Class for Beginners II (1)	000204	1	(Nakao)	Autumn semester in first academic year	15	Common subjects for all graduate schools
	Japanese Class for Beginners II (2)	000205	1	(Nakao)	Spring semester in second academic year	15	Common subjects for all graduate schools
	Japanese Class for Beginners III (1)	000206	1	(Hashimoto)	Second academic year	15	Common subjects for all graduate schools
	Japanese Class for Beginners III (2)	000207	1	(Hashimoto)	Second academic year	15	Common subjects for all graduate schools
	Japanese Culture	000105	2	(Adarsh)	First academic year	30	Class is open twice in this academic year Common subjects for all graduate schools
	Technology and Professional Ethics	000104	1	(Ueda)	Autumn semester in first academic year	15	Japanse class in this academic year Common subjects for all graduate schools
General	Professional English I	210301	1	McAleese	Spring semester in first academic year	15	
	Professional English II	210302	1	McAleese	Autumn semester in first academic year	15	
	Professional English III	210303	1	McAleese	Autumn semester in second academic year	15	
	Communication Strategies	210304	1	McAleese	Autumn semester	15	
	Communication Quality through Phonology	210305	1	McAleese	Spring semester	15	
	Logic in Scientific Discovery	210306	1	Inagaki	Autumn semester	15	
Basic	Molecular Cell Biology	220301	1	H.Maki etc.	First academic year	15	
	Advanced Topics in Bioscience	220302	1	Takagi etc.	First academic year	15	
	Laboratory Rotation I	220303	1	Nakajima etc.	First academic year	15	
	Laboratory Rotation II	220304	1	Nakajima etc.	First academic year	15	
	Literature in Bioscience Research I	220305	1	Bessho etc.	First academic year	15	
	Literature in Bioscience Research II	220306	1	Shiozaki etc.	First academic year	15	
	Research Presentation Forum	220307	1	Bessho etc.	Second academic year	15	
Special	International Forefront in Bioscience I	230301	1	Shiozaki etc.	First and Second academic year	15	
	International Forefront in Bioscience II	230302	1	Shiozaki etc.	First and Second academic year	15	
	Bioscience Colloquium	230303	1	Demura etc.	First and Second academic year	15	
	UCD Online Seminar	230304	1	Nakajima etc.	First and Second academic year	15	
	Systems Biology I	130038	1	Kanaya etc.	Spring semester	15	Subject in Information Science
	Bioresource Research Proposal	230305	1	Demura etc.	Second academic year	15	
Seminar I		240301	2	Faculty members of assigned laboratory	Spring semester in first academic year	30	
Seminar II		240302	2	Faculty members of assigned laboratory	Autumn semester in first academic year	30	
Seminar III		240303	2	Faculty members of assigned laboratory	Spring semester in second academic year	30	
Seminar IV		240304	2	Faculty members of assigned laboratory	Autumn semester in second academic year	30	
Research Experiment I		240305	3	Faculty members of assigned laboratory	Spring semester in first academic year	90	
Research Experiment II		240306	3	Faculty members of assigned laboratory	Autumn semester in first academic year	90	
Research Experiment III		240307	3	Faculty members of assigned laboratory	Spring semester in second academic year	90	
Research Experiment IV		240308	3	Faculty members of assigned laboratory	Autumn semester in second academic year	90	
Thesis		250301	2	Faculty members of assigned laboratory			

Lectures in charge (shown in parentheses) are part-time lectures

Class period is designed for students who enroll in April

List of subjects and faculty members in charge for the Graduate School of Biological Sciences in academic year 2017

Doctoral course

Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
Research Project Design	260001	1	Advisory committee	First academic year	15	
Overseas Internship I	260002	3	Shiozaki	Autumn semester in first academic year	45	
Overseas Internship II	260003	3	Shiozaki etc.	Each academic year	45	
International Bio-Seminar I	260004	1	Shiozaki etc.	Each academic year	15	
International Bio-Seminar II	260005	1	Shiozaki etc.	Each academic year	15	
International Bio-Seminar III	260006	1	Shiozaki etc.	Each academic year	15	
International Bio-Seminar IV	260007	1	Shiozaki etc.	Each academic year	15	
International Bio-Seminar V	260008	1	Shiozaki etc.	Each academic year	15	
International Bio-Seminar VI	260009	1	Shiozaki etc.	Each academic year	15	
Research Project Presentation	260010	1	Hashimoto etc.	Second academic year	15	
International Student Workshop	260011	1	Sasai etc.	Second academic year	15	
UCD Research Retreat	260012	1	Shiozaki etc.	Third academic year	15	
Communication Strategies	260013	1	McAleese	Autumn semester	15	
Communication Quality through Phonology	260014	1	McAleese	Spring semester	15	
Professional English I	260015	1	McAleese	Spring semester	15	
Professional English II	260016	1	McAleese	Autumn semester	15	
Professional English III	260017	1	McAleese	Autumn semester	15	
Responsible Conduct of Research	260018	1			15	N/A in this academic year
UCD Online Seminar	260019	1	Nakajima etc.	Each academic year	15	
Research Experiment Ⅰ	270001	6	Advisory committee	First academic year	180	
Research Experiment Ⅱ	270002	6	Advisory committee	Second academic year	180	
Research Experiment Ⅲ	270003	6	Advisory committee	Third academic year	180	

9 Our various counseling service systems

Counseling regarding course content

We have office hours for you to help deepen your understanding of the courses offered.
During office hours, students can visit the laboratories of our teaching staff overseeing the courses and ask questions about the courses or consult the teaching staff.
As the office hour schedules and contact methods are established by each professor please check the corresponding page on each subject's syllabus.

For the rooms and telephone numbers of the Graduate School of Materials Science teaching staff, please access the following URL or proceed to "Top Page of the website of the Graduate School of Materials Science→ Internal Page→ List of Telephone Numbers of Laboratories".

Website of the Internal Access Only of the Graduate School of Materials Science:
http://mswebs.naist.jp/GAKUNAI/

Counseling related to research guidance

If you have issues related to education and research, you can consult one of your research supervisors. (This university has adopted a system whereby each student is assigned multiple research supervisors.)

Counseling about job hunting

The faculty member and administrative staff supervising job hunting and our supervisors in each laboratory will advise you regarding job hunting.
In addition, our Career Services Office will help doctoral-course students to find a job. For more details, please see the page entitled "10. Learning Support: Career Services Office".

Counseling on your health

The Health Care Center provides advice regarding physical and mental health. Professional counselors come to the Center several times a month to provide you with consultation services by appointment. (For more details, please see "10. Learning Support: Health Care Center.")

The Office for Students with Disabilities provides consultation concerning physical, mental, developmental and other disabilities. (For more details, please see "10. Learning Support: Office for Students with Disabilities."

Student Consultation

Graduate students are faced with a variety of different problems and worries in the course of their everyday lives.

In order to give support to students facing problems, each graduate school, the Health Care Center, and the Educational Affairs Division, has a Miscellaneous Consultation for Students office with consultation staff on hand.

As well as providing advice for the solution of problems, consultation staff can also point consults to an appropriate consultation office.

So don't keep your troubles to yourself. If you have any worries, please talk them over with Miscellaneous Consultation for Students staff. Strict confidentiality is maintained regarding the content of all consultations.

For more details about consultation staffs, please refer to the website of NAIST.

https://ad-info.naist.jp/gakusei/member/campus/soudan.html

Counseling on harassment

Harassment refers to acts in violation of another person's character or human rights through speech or behavior against his or her will.

Principally, harassment takes the following forms:

◎**Sexual harassment**

To offend or humiliate one or more people around you by sexual coercion or approach, using a position of power or authority in such settings as study and education.

◎**Academic harassment**

Inappropriate speech and discriminatory treatment committed by those having authoritative status in an education setting by means of a position of power or authority in fields related to study, education and research, in violation of the right to receive education including mental mistreatment, or hindering education, research or related professional activities.

◎**Power harassment**

Acts by superiors or those having a similar status of applying conscious or subconscious pressure by exercising professional authority in matters that are beyond the boundary of their job description or that overstep the appropriate bounds even if related to the tasks.

We have a counseling window for sexual harassment cases.

If you have claims or seek advice on sexual harassment, please do not hesitate to contact us by telephone or mail. We have advisors in graduate schools, research centers, the Health Care Center, and the Administrative Bureau. For further details on advisors, please refer to the information on harassment on the Intranet/ internal page for students on our website.

10. Study Support

Health Care Center (③ on the campus map)

The Health Care Center (on 2F of the University Union Building) offers three functions below to maintain and promote student mental and physical health.

Check: Medical checkup
Cure: Day-to-day diagnosis and treatment
Care: Day-to-day lifestyle guidance and health education

The center has a consultation room, health counseling room, student chat room, and resting room, and is staffed by one physician and one nurse on a full-time basis (as well as two counselors and one nurse on a part-time basis).

1. Open hours

【Clinic】

Clinic Hours	Mon.	Tue	Wed.	Thu.	Fri.
10:30〜13:30	○（〜12:00）	○	×	○	○
14:30〜16:30	×	○	○	○	○

（Interval time：13:30〜14:30）

2. Diagnosis and treatment

If you are experiencing any physical problems, please do not hesitate to visit the center. Diagnostic equipment is in place to offer simple treatment, and the center prescribes medicine if necessary. If the care required is beyond the capacity of the center, you will be introduced to outside specialists or hospitals.

3. Mental health counseling

A doctor and nurses work together to offer mental counseling. The center is visited by professional counselors four times a week (two counselors each time) to offer counseling services. Please feel free to visit the center. Confidentiality obligations are strictly observed.

4. Medical checkups

General regular medical checkups are available in June, while special regular medical checkups are offered to those who handle RI, X-ray, gene recombination, organic solvents, and specified chemical substances. Patients are informed of all details (including the schedule) via e-mails, letters, and bulletin boards.
(Those who take a complete medical checkup are required to submit copy of the report to Health Care Center.)

5. Issuing health certificates

The center issues health certificates required for job applications and enrollment in advanced academic programs. Health certificates are available if you have gone through all the check items in the general regular medical checkups. Health certificates are issued (i) via the automatic certificate issuing system at the entrance lobby of the NAIST Library or (ii) at the Health Care Center.

6. Self checks

Automatic height and weight scales, digital sphygmomanometers, and automatic optometers (located in front of the reception desk of the center) are available anytime for self checks.

7. Student chat room

The room is available for relaxation and chatting.

8. Resting room

The resting room is available when you feel ill and want to take a rest.

9. Free-of-charge services and confidentiality obligations

• All the services offered by the center are free of charge. Please note, however, that medical expenses are incurred (but 70% of the expenses is covered by the National Health Insurance program) when you consult physicians at medical institutions introduced by the center.
• Please handle equipment carefully.
• All the medical practices (including physical and mental counseling) are subject to confidentiality obligations, which are strictly observed.

10. HCC NEWS (the Health Care Center News)

HCC NEWS (the Health Care Center News) has been issued and distributed annually. Currently we are constructing a web page that will be opened in the near future to send out useful information instead of this printed newsletter.

11. Contact information

Director's office at the center: Dr. Hidetaka Hougaku (physician) (extension 5105)
Reception desk at the Consultation Room: Ms. Kinuyo Nishiyama (nurse) (extension 5108)

The Health Care Center is always available to maintain and promote your health.

Medical Checkups and Health & Safety Education

NAIST offers general medical checkups in accordance with the School Health and Safety Act to maintain and promote the health of its students, while conducting special medical checkups in accordance with the Industrial Safety and Health Act to ensure student safety and health.

1. Medical checkups

Name	Category	Date	Target	Details
General medical checkup[*1]	Graduate School of Information Science	Wed., June 21	All students	Interview/examination, body measurement, visual acuity/hearing tests, blood pressure measurement, chest X-ray, urine tests, and blood tests
	Graduate School of Biological Sciences	Thu., June 22		
	Graduate School of Materials Science	Fri., June 23		
Special medical checkup	RI/X-ray[*2]	(Twice a year) The first special medical checkup is conducted concurrently with the general regular medical checkup. The second special medical checkup is scheduled for December.	Students registered as participants of radiation experiments	Interview, examination, and blood tests
	Gene recombination[*3]	(Once a year) The special medical checkup is conducted concurrently with the general regular medical checkup.	Students registered as participants of gene recombination experiments	Interview, examination, and blood tests
	Organic solvents	(Twice a year) The first special medical checkup is conducted concurrently with the general regular medical checkup. The second special medical checkup is scheduled for December.	Students registered as participants of experiments using organic solvents and identified by industrial physicians based on frequency and volume of organic solvents handled	Interview, examination, blood tests, urine tests, etc.
	Specified chemical substances	(Twice a year) The first special medical checkup is conducted concurrently with the general regular medical checkup. The second special medical checkup is scheduled for December.	Students registered as participants of experiments using specified chemical substances and identified by industrial physicians based on frequency and volume of specified chemical substances handled	Interview, examination, blood tests, urine tests, etc., required for respective specified chemical substances

[*1] Health certificates are available if you have gone through all the check items in the general medical checkups.
[*2] Students who do not take medical checkups in the category of "RI/X-ray" are not allowed to engage in radiation experiments.
[*3] Students who do not take medical checkups in the category of "Gene recombination" are not allowed to engage in gene recombination experiments.

2. Health & safety education

NAIST offers health and safety education programs for all the students to (i) maintain and promote health, (ii) ensure safety and health, and (iii) develop human resources with high levels of safety awareness.

Name	Category	Date	Target
Health education	Physical & mental health	Tue., May 23 4th period	All new students
Safety education	Safety education (common)	Thurs., April 6 4th–5th periods	
	Safety education (experiment)		

Office for Students with Disabilities

The Office for Students with Disabilities has been established in order to offer support for students with disabilities to have independent student lives at NAIST. The office staff have specialized training and knowledge about disabilities and counseling, and works in cooperation with related NAIST departments, faculty and staff to provide support to students with disabilities and serve as a student counselor.(academic and mental)

Career Services Office

The Career Services Office has aimed to support students and post-doctoral researchers in career development. The office, located on the first floor of the Administrative Office building (next to the Educational Affairs Division), has job posting information, and a collection of job-related books (including study-aid books for SPI and quarterly corporate reports) available, and the career development counselor is available to provide various career development support.

1. **Open hours:** 9:30-17:30 (Closed between 12:00 and 13:00)
   Closed on Saturdays, Sundays, National Holidays and specific university Holidays.

2. **Career counselling**
   We provide advice on concerns and anxiety related to your career vision and job hunting. Career development counselors and career advisors from public organizations are available for counselling. Counselling services are available by appointment only and reservation instructions are provided on the Career Services Office website. Confidentiality will be strictly observed.
   [URL for booking] http://www.supersaas.jp/schedule/naist-career/?lang=en

3. **Career guidance**
   We hold career guidance seminars to help students find and secure jobs. Details of the seminars, including the dates, will be available on the Career Services Office website or via e-mails.

●Schedule for the academic year 2017 (Tentative)

No. 1	How to proceed with job hunting for the academic year 2017	In total, 8 seminars will be held between September and next June. From No.1 to No. 6, seminars will be held in English
No. 2	Self-analysis and Self-promotion seminar	
No. 3	Seminar on applications and CVs	
No. 4	How to carry out research on industry fields and companies	
No. 5	Preparation for interviews and business etiquette	
No. 6	Intensive seminar on interviewing (Group interview)	
No. 7	Simulation of group discussion	
No. 8	Last-minute seminar	
Correction of mock applications, mock exams (preparation for SPI), preparation for civil service examination		

4. **Lending service of books related to job hunting**
   You can borrow books that will be useful in your job hunting in Japan or development of your career vision.

   Rules for borrowing books
   ①Borrowing period: Available for a week, in general.
   However, you can extend the borrowing period for another week if no student would like to borrow the same book. In this case, please contact the Career Services Office by the return date.
   Your next borrowing request will not be accepted if you have not returned books for an extended period of time.
   ②The maximum number of books to be lent per person at one time: 2 books
   We do not lend books and magazines which are reserved for reading inside the office.
   In order to borrow books, you need to present your student card for personal identification.
   ③Where to borrow and return books: Career Services Office

5. **Contact**
   Extension: 5921/5922
   E-mail: career@ad.naist.jp
   URL: http://www.naist.jp/career/

Information iniTiative Center : ITC (⑧on the campus map)

ITC manages and operates Information infrastructure and Information network (Mandara System) in NAIST. ITC also conducts the support of education and research by utilizing Information security management and Information media.

What is "Mandara"

The university-wide information system at NAIST is named "Mandara", which refers to the truth in Esoteric Buddhism (i.e., the seeking of the infinitesimal paradoxically leads to infinite proliferation).
The Mandara System features strategic architectural configuration to meet user needs and build an advanced environment.
Meanwhile, an information processing environment has been developed from the viewpoint of researchers based on the basic principle of "fulfillment without excess or deficiency" as represented by Mandara.

How to use the Mandara System

You can get more information about the Mandara System to the next page.
And, when you use the Mandara System, you must observe the Ethical Regulations and the following Basic Rules.

■ Ethical Regulations for NAIST Information Network Use
http://itcw3.naist.jp/ITC-local/policy/ethical_regulations.en.pdf

■ Mandara Operation Policy
http://itcw3.naist.jp/ITC-local/policy/mandara_operation_policy_en.pdf

■ Computer Security on Mandara
http://itcw3.naist.jp/ITC-local/policy/security/index.en.html
It is necessary to keep your computer secure in order to use the network properly.

■ Use of P2P Software
http://itcw3.naist.jp/ITC-local/policy/p2p/index.en.html
Using peer-to-peer (P2P) file-sharing software in NAIST or the NAIST dormitory is prohibited.

If you break these regulations, rules and the Laws of Japan, ITC may suspend your account.
So you have to keep these rules.

Using the NAIST Information Environment

Account and password

Your Account (User ID) and password are very important for using the NAIST Information Environment (We call it the "Mandara System"). You will receive them from ITC at the guidance session. You must change the initial password you receive to your own password immediately. Please responsibly manage your password.

http://itcw3.naist.jp/about/mandara-system.en.html (About Mandara System)
http://itcw3.naist.jp/ITC-local/password/good-passwd.en.html (Good Password?)

E-mail service

ITC assigns one e-mail address to each person. This e-mail service is necessary for your research activities and campus life in NAIST. The following table shows settings for the e-mail service.

	Server Name	Protocol	Authentication	Port
Incoming server	mailbox.naist.jp	IMAP over SSL	Plain password	993
Outgoing server	mailpost.naist.jp	SMTP over TLS	Plain password	587
Webmail	https://mailbox.naist.jp/	HTTPS	Plain password	

http://itcw3.naist.jp/ITC-local/Mail/mailenv.en.html (NAIST Mail Environment)

Mandara Network

The Mandara Network is the backbone of the NAIST Information Environment. The communication speed is 100 Gbps for the core and 20 Gbps or higher for the branch networks. You can use it via the Standard Individual Workstations.

http://itcw3.naist.jp/about/mandara-system.en.html#network (Mandara Network)

Mandara Wireless LAN

The Mandara Wireless LAN (mm2010) is available on campus. It provides strong network security (WPA2 encrypted communications). To connect to the mm2010 with your PC, you need to set the ESSID and encryption key as follows, then enter your Mandara account and password from your browser.

ESSID	Encryption key (WPA2-PSK AES)
mm2010	B6djfSOuBbsLx8xM01BoAjs2e45CGdw9jr/ScdLBl0d8kSA

http://itcw3.naist.jp/ITC-local/wireless/index.en.html

Desktop IT environment (Standard Individual Workstations)

ITC prepares computer terminals which are called Standard Individual Workstations. They are installed in your laboratory to assist you in accessing NAIST information resources efficiently. Before you begin to use these Workstations, you must attend a lecture from your lab's PC administrator.

Campus-licensed software

ITC provides campus-licensed Microsoft Windows, Microsoft Office and antivirus software for NAIST users. Please read the following URL before installing and using campus-licensed software.

http://itcw3.naist.jp/ITC-local/campuslicense/index.en.html

Printer service

You can use the multi function printers installed on each floor. These are common use equipment, so please be considerate of other users.

http://itcw3.naist.jp/ITC-local/manual/printer/printer.en.html

High-Performance Computer Server

With your NAIST account, you can use the NAIST High-Performance Computer Server. On this server, you can run code and calculations, such as MATLAB, R, Java SE, CUDA, Hadoop and Materials Studio.

http://trac.naist.jp/trac/grid/

In case of trouble

You can browse further information concerning this leaflet at the following URL.

http://itcw3.naist.jp/ITC-local/index.en.html

Reporting an issue or trouble

When you discover a malfunction in ITC managed equipment such as a workstations, networks, printers or anything else, you can inform the ITC staff about it and request help by sending an e-mail to itc-trouble@itc.naist.jp.

http://itcw3.naist.jp/ITC-local/ITC-mail-lists/itc-trouble.en.html

Note : Regarding problems with equipment installed in the Biological Sciences buildings and the Materials Science buildings, please ask first your lab's PC administrator.

Reporting a security incident

If you discover an information security incident such as a malware infection or a fishing attack, report it to the ITC and your lab's PC administrator immediately.

Contact Information

	Contact	ITC staff room
Information Science	Email: itc-trouble@itc.naist.jp http://itcw3.naist.jp/ITC-local/ITC-mail-lists/itc-trouble.en.html	IS Building B207
Biological Sciences	PC administrator or your lab faculty	BS Building D214
Materials Science	PC administrator or your lab faculty	MS Building E202
Administration Bureau	Information Planning Section	AD Building 2F

NAIST ITC
Information iniTiative Center

NAIST Mandara | Search

Information iniTiative Center (ITC)

Proper use of the Mandara system

The Information System of NAIST (Mandara system) is provided for the education, research and the administrative activities of the university. The Mandara system includes not only the equipment on campus but also users' personal computers/smart phones which also connect to the Mandara Network. When you use the Mandara system, you must always pay attention and strive to assist in proper system maintenance.

If you neglect information security or commit illegal acts, you may become both a victim and a perpetrator. Not only could you suffer damages, but also possibly legal repercussions. In addition to this, you may disturb many people on campus and harm NAIST's reputation.

You must take precautions to keep up to date on information security and avoid illegal use.

Preventing illegal use

Any intentional or unintentional illegal behavior or behavior which inconveniences other users at NAIST is strictly prohibited when using the information environment, external networks and/or computers on the Internet.

Socially transgressive behavior is prohibited

You must respect the rights of others online as well as offline. Users must not defame others via e-mail, BBS, SNS, etc.

Illegal access is prohibited

Unauthorized access and the sharing other people's passwords without their permission is prohibited.

Illegal copying is prohibited

Users should respect copyrights and license agreements. Specifically, you should not copy commercial software protected by copyrights or license agreements.

Sharing of illegal content is prohibited

Under Japanese law you are not allowed to share/upload/download copyrighted files (e.g. movies, music, and pictures) on the Internet without the agreement of their authors.

Ethical Regulations for NAIST Information Network Use

When you use the Mandara system, you must observe the "Ethical Regulations for NAIST Information Network Use" and the following basic rules. A major purpose of these is to prevent improper and illegal use of the information environment, as well as to ensure smooth and proper operation of the information network at NAIST.

http://itcw3.naist.jp/ITC-local/policy/ethical_regulations.en.pdf （Ethic Rules of Information Network）
http://itcw3.naist.jp/ITC-local/policy/mandara_operation_policy.en.pdf （Mandara Operation Policy）
http://itcw3.naist.jp/ITC-local/policy/p2p/p2p-request.en.html （Use of P2P Software）

NAIST Ethical Regulations

1. Do not violate the personal communication of others.
2. Do not violate the rights or privacy of others.
3. Do not violate copyrights or intellectual property rights.
4. Do not send or participate in the sending of obscene/indecent pictures or writing, immoral communication, or any other communication that violates Japanese laws and ordinances.
5. Do not obstruct the management and operation of the Information Network System or damage the network or its equipment through the use or downloading of harmful software or data.
6. Only access the Information Network System within the authorized limitations.
7. Do not use the Information Network System for religious or political purposes.
8. Do not use the Information Network System for personal profit.
9. Do not obstruct the proper management and operation of the Information Network System.
10. Do not participate in or perform acts that unjustly impair or harm personal, university, or social interests and activities.

Security measures

Network use can encounter various problems, such as the infection by a malware attached to e-mail, accessing malicious webpages, various server attacks and personal information leaks. Your computer must be kept secure in order to use the network properly.

Password Management

Your account and password are YOUR KEY to NAIST services, support and more. If your password is stolen, your data may also be stolen, altered or deleted. Please choose a secure password, a long string of mixed characters (alphabets, numbers or symbols). After setting the password, make sure you keep it protected. Do not give it out to other people. When you find out that your password has been stolen, report it to ITC immediately.

Using network services

When you connect your devices to the Mandara network, including the dormitory network, you must install antivirus software and update the virus definition files. Also, you have to turn on the firewall settings on your devices.

Malware measures

You must always update to the latest corrective OS and applications. Also, you must install and use antivirus software. Make regularly update your OS, applications and virus definition files.

If you connect to the NAIST network, including the dormitory network, with your own computer, you must obey the campus rules and set up the appropriate security settings. Thank you in advance for your cooperation with the Mandara network.

http://itcw3.naist.jp/ITC-local/policy/security/index.en.html（Computer Security on Mandara）

Information iniTiative Center (ITC)

Ethical Regulations for NAIST Information Network Use

Note: This is English translation of the Ethical Regulations for NAIST Information Network Use, which is originally in Japanese. It is provided as a reference for international staff and students to understand the content of Ethical Regulations for NAIST Information Network Use and it should not be regarded as official regulations.

Article 1 (Purpose)

These regulations have been created to prevent actions that may violate communication privacy, human rights, or intellectual property rights, actions of moral misconduct, and those actions that may interfere with proper operation during the use of NAIST's information network. In addition, they have been created to ensure smooth operation of the information network system and contribute to the improvement of its management, supervision and role in education and research.

Article 2 (Definitions)

(1) The "Information Network System" refers to the facilities for the management and operation of the information network, the computers connected to this network, equipment related to the network, and the software used on it.
(2) "Users" refers to NAIST directors, staff, faculty, students and those engaged technical, administrative, research, or educational activities, who use NAIST's information system.
(3) "System administrator" refers to the director of the Information Initiative Center and those involved with administration and management of the information network system.

Article 3 (Restrictions of Use)

The information network system is to be solely used for the purposes of education, research and university administration and management.

Article 4 (Network Rules)

Users recognize that the Information Network System can have strong and broad effects on society and, in order to ensure the smooth and proper operation of the network, agree to abide by the following rules. In using the internet, the user must handle all information, personal and otherwise, attained through the system properly.

(1) Do not violate the personal communication of others.

(2) Do not violate the rights or privacy of others.
(3) Do not violate copyrights or intellectual property rights.
(4) Do not send or participate in the sending of obscene/indecent pictures or writing, immoral communication, or any other communication that violates Japanese laws and ordinances.
(5) Do not obstruct the management and operation of the Information Network System or damage the network or its equipment through the use or downloading of harmful software or data.
(6) Only access the Information Network System within the authorized limits.
(7) Do not use the Information Network System for religious or political purposes.
(8) Do not use the Information Network System for personal profit.
(9) Do not obstruct the proper management and operation of the Information Network System.
(10) Do not participate in or perform acts that unjustly impair or harm personal, university, or social interests and activities.

Article 5 (System Administrator Duties)
The system administrator will alert all users of these regulations and the rules within, while promoting moral awareness concerning information network system usage.
(2) The system administrator may take measures such as canceling access to the Information Network System of those individuals who violate or are in violation of these regulations or any of the rules within.

Article 6 (Network Investigation)
Upon discovering acts or computers in violation of the rules in article 4, report this to the Information Initiative Center. (Herein referred to as "Center")
(2) After investigating possible violations and finding violations of the rules in article 4, the Center will notify the university president and the dean of the violator's graduate school of the investigation results.
(3) In the case where a violation involves areas under the administration of a university committee, the Center will also notify the appropriate committee of the investigation results.
(4) In performing the investigation in (2), the Center will perform an impartial interview of the possible violation and those involved, taking care to respect their respective privacy, rights, and reputation.

Article 7 (Disciplinary Actions)
After receiving a report of the investigation in Article 6-(2) and after following the appropriate procedures, the university president will decide strict disciplinary actions appropriate to the severity of the violation.

Article 8 (Miscellaneous Provisions)
Provisions and rules in addition to those stated in these regulations will be established concerning information network usage.

Supplementary Provision
These regulations shall come into effect on April 1, 2004.

Supplementary Provision
These regulations shall come into effect on April 1, 2005.

Supplementary Provision
These regulations shall come into effect on April 1, 2010.

Supplementary Provision
These regulations shall come into effect on April 1, 2011.

NAIST Library (② marked on the campus map)

We, NAIST Library support education and research in advanced sciences and technologies (especially in information science, biological sciences, and materials science). We pursue to make our library keep providing NAIST members with excellent accesses to books, journals and scientific information anytime, anywhere connected with the internet through "MANDARA network".
We provide accesses to not only books and journals but also lectures and theses as digitalized NAIST academic works, and efficiency navigation to full-text of latest scientific information on the library website.

We also provide usual library services and facilities: services for those who are present in the library (e.g. book circulation, browsing) for 24 hours a day, "Chi-no-Mori Selection" as the booth offering books in specialized theme, "Multimedia Lounge" and "Theater Lounge" for group meeting, interlibrary services with other academic libraries, National Diet Library and Nara Prefectural Library and Information Center.

1. The major services and library materials available through the NAIST Digital Library (Library portal)

Library materials Search (Online Public Access Catalog) (books, journals, DVDs)
NAIST's digitized materials
**You must submit a written pledge to abide by copyright law before using the materials.
Digitized books and journals
Theses (master's and doctoral theses etc.)
Lecture archives
Lecture videos
Handouts
Online journals, Online books and Databases
** Online resources are available to NAIST students on campus and from off-campus.
naistar (academic repository) which aims to collect digital research materials produced at NAIST, storing and saving the materials on a permanent basis, and providing them for public viewing via Internet free of charge.

2. Checking out and Reading library materials

- **You can check out ten books from the library for two weeks, though reference books and journals cannot be checked out.**
- **You can check out and return books using the ABC (Automatic Books Circulation) machine.**
- **You can reserve the book which is on loan and extend the due date from the Library Portal.**

**Students can use the library 24 hours a day all year round. A student ID card is required to enter the library between 7:00 pm and 8:00 am of the following day. (except during the New Year holidays and temporary closing)

For more information, please refer to the Library Portal (http://library.naist.jp/) or the library guide.

English E-Learning System (ALC NetAcademy 2)

1. What's ALC NetAcademy 2?

ACL NetAcademy 2 is an online English learning system which provides self-study courses to improve English competence, practice TOEIC, and develop reading skills for scientific papers.

2. Who can Use NetAcademy 2?

Students and faculty members of NAIST can use the system. This system is on service 24 hours a day and is accessible at home or from outside the campus. Registration is not required.

3. How to Access?

You can directly access the following URL,

https://itcw3.naist.jp/NetAcademy/index.ja.html

<How to login> Account : MANDARA-DOMAIN¥"MANDARA account"

Password: "MANDARA password"

4. What Courses are available?

The following five courses are available:

- Super-standard Course
- Standard Course
- Course for Beginners and Intermediates Plus
- Technical English (Basic Course)
- Technical English (Power-up Course)

5. Recommended System Requirements

NetAcademy 2 has been tested on the following platforms:

OS	Windows Vista SP2 / 7 SP1 / 8 , 8.1 *
WWW Browser	Internet Explorer 8 / 9 / 10 / 11
Browser Plug-in	Flash Player 12.0

*NetAcademy 2 should run on other platforms as long as Flash Player operates properly. However, there is a possibility that texts and animations are not displayed properly, etc.

*On MacOS X 10.3/10.4, TOEIC Test in the Course for Beginners and Intermediates Plus has been confirmed not to work properly.

11 Campus Life

Tuition and payment

1. Tuition fee and due date (by automatic bank transfer)

Course	Tuition fee (*1)	Due date (*2)
Master's course Doctoral course	535,800 yen (267,900 yen for a half-year term)	Spring semester (April to September): Due May 29 (Monday), 2017 Autumn semester (October to March): Due November 27 (Monday), 2017

*1: If the tuition fee is revised during your enrollment, the new tuition fee will be charged.
(You will be notified of the tuition fee for the semester by e-mail during May and November.)
*2: Payment (by automatic bank transfer) is due on May 27 and November 27 every year. If the due date falls on a non-business day of the financial institution, the payment will be transferred on the following business day. (Your account balance is checked at 3:00 pm on the business day preceding the due date.)

2. Payment

The tuition fee for a half-year term is automatically withdrawn from your bank account on the due dates of the spring and autumn semesters designated by NAIST. If you wish to pay the tuition fee for both semesters combined on the due date in May, please contact us by April 28 (Friday), 2017. If you have applied for tuition fee waiver, payment of the tuition fee will be postponed until the result of the application is announced. For details of automatic bank transfer procedures and other related matters, please inquire at the Accounting Section of the Finance Division (extension: 6227).

Note that failure to pay the tuition fee for two consecutive semesters will result in expulsion from NAIST.

Student ID Card

NAIST students are issued a student ID card, which not only verifies your status as a NAIST student but also serves as an electronic key. This key is needed for: entry to NAIST's facilities before or after the normal service hours, namely between 7:00 pm and 7:30 am, and on Saturday, Sunday and national holidays; use of the automatic certificate issuing machine; and borrowing of books from the NAIST Library. Therefore, you should carry your student ID card at all times while attending NAIST. Your graduate school, year of enrollment, and student number are registered in the card, and card readers automatically scan this information to check whether you are eligible to enter specific facilities in NAIST.

Precautions on handling your student ID card

(1) You should keep your student ID card in a case and carry it at all times at NAIST.
(2) You are not allowed to lend or assign your student ID card to anyone else.
(3) If you lose your student ID card or your card has become unusable due to failure of the magnetic strip, etc., you should immediately report it to the Academic Affairs Section of the Educational Affairs Division.
If the card reader does not react properly upon inserting your student ID card to enter a certain building, call the Security Center on the first floor of the Administration Bureau building through the interphone, state your affiliation and name, and the key will be unlocked for you.
(4) When your student ID card has expired or you are no longer a NAIST student due to withdrawal or for other reasons, return your student ID card to the Academic Affairs Section of the Educational Affairs Division without delay.
(5) Protecting your card:
・Keep your student ID card away from strong magnetic fields or devices (e.g. NMR machines).
・Do not leave your card in hot places (e.g. in a car during summer).
・Do not fold your student ID card.

Student Personal Report

The information contained in the "Student Personal Report" (*Gakusei kojin houkokusho*) submitted at the time of enrollment is used for contacting you in case of emergency. If any of the following registration details changes, please inform the Academic Affairs Section of the Educational Affairs Division without delay.

●Registration details

・Your address and telephone number (fixed and/or mobile) where you can be reached after enrollment in NAIST

・Information about your place of work (if you are a working student)

・Name of a contact person in case of emergency, person's relationship with you, and his/her address and telephone number

● Where to report

Please report the change to the Academic Affairs Section of the Educational Affairs Division.

Procedures and issuance of certificates

1. Procedures

When requested by NAIST, by means of a notice on the bulletin board, etc., you should perform the procedures as requested within the specified period. You should also perform the prescribed procedures when necessary for your own personal reasons. Please note that failure or delay in doing so could cause hinder you in many ways and become an inconvenience to other people.

Document to be submitted	When to submit	Contact office
Leave of absence request form (Kyugaku Negai)	When you are to take a leave of absence for three consecutive months or longer by illness,studying abroad,and so on. (If illness is the reason for the leave, a medical certificate should be attached.) * The form should be submitted at least two weeks in advance.	Academic Affairs Section, Educational Affairs Division (Extension: 5085)
Return from leave request form (Fukugaku Negai)	When you wish to return to NAIST before the period of the leave of absence is over. (For those who were absent due to illness, please attach a medical certificate.)	

Return from leave notice form (Fukugaku Todoke)	When you wish to return from leave during your scheduled leave of absence period.	
Withdrawal form (Taigaku Negai)	When you are to withdraw from NAIST * The form should be submitted at least two weeks in advance.	
Change of name form	When your name changes * A residence certificate or other document proving your change of name should also be submitted.	
Student ID card reissue request form	When you have lost your student ID card or your card has become unusable due to damage or dirt	
Overseas travel Notification	When you are to travel overseas for less than three months (except when the travel is needed as part of the regular coursework at NAIST)	Education Planning Section, Educational Affairs Division (Extension: 6247)
Study Abroad Request	When you go studying abroad * The form should be submitted at least two months in advance.	International Affairs Section, International Affairs Division (Extension: 5909, 5087)
Notice of Absence from Japan	When international students are to temporarily return to their home countries or depart from Japan. * Please submit "Notice of Absence from Japan" before leaving .※The form is available at International Student Affairs Section for the document.	International Student Affairs Section, International Affairs Division (Extension: 5909, 5087)
Plan after completion of course /job (informal employment offer) report form	When you graduate or leave school	Career Services Office (Extension: 5921)
The forms to be submitted to the Educational Affairs Division are available at its counter, or can be downloaded from the intranet and website for NAIST students at: https://ad-info.naist.jp/gakusei/shinsei.html		

●Notes on procedures for leave of absence or withdrawal

(1) Leave of absence

- You can apply for leave of absence if you are unable to attend school for three consecutive months or longer due to illness or for other justifiable reasons.
- The period of leave of absence is up to one year, however, you may apply for an extension of the period for another one year at the longest, if you have special reasons. To apply for an extension of the period of leave of absence, you are required to submit the leave of absence (extension) request form again, at least two weeks prior to the expiration of the initial period of leave of absence.
- Upon expiration of the period of leave of absence, you are automatically readmitted to NAIST. Please submit "Return from leave notice form."
- The period of leave of absence does not count toward the standard years of study and years of enrollment.
- Please also indicate when you expect to complete your course after returning to NAIST.
- Some certificates (including certificate of expected completion, certificate of health, and certificate of student travel discount) cannot be issued during the period of leave of absence.
- You cannot use the NAIST Library during the period of leave of absence.
- You do not have to pay tuition fees for the period of leave of absence.

(2) Withdrawal

- If you withdraw from NAIST after having been enrolled in the doctoral course for at least three years, provided your instructor confirms you have received his or her research guidance, you are treated as "having withdrawn from NAIST with the approval of your research instructor" in your personal record.
- Tuition fees, once paid, cannot be reimbursed.

(3) Common matters

- Permission for both leave of absence and withdrawal is conditioned on payment of the tuition fee.
- Tuition fees, once paid, cannot be reimbursed except in the following cases:
  - If leave of absence is permitted, the portion of the tuition fee for the period of leave of absence will be reimbursed.
  - If you paid the combined tuition fee for the spring and autumn semesters, and are permitted to withdraw from NAIST before the beginning of the autumn semester, the tuition fee for the autumn semester will be reimbursed.
- The deadline for submitting the form is two weeks prior to the date you wish to take leave of absence or withdraw. If you fail to submit the form by the deadline, the date of permission will be in the following month.
- In principle, a request for leave of absence or withdrawal should be made on a semester by semester basis.
  Leave of absence: The period should commence from April or October and end at the end of September or March, in principle.
  Withdrawal: The date you wish to withdraw from NAIST should be the end of September or March.
- You should indicate the reason for the leave of absence or withdrawal in the form in detail; "for personal reasons" cannot be accepted.
  - Leave of absence: If you take leave of absence due to illness, a medical certificate should be attached. If the reason is "pressure of business," indicate the name of your workplace.
- Note that you may be required to move from NAIST's dormitory or take procedures to stop payment of scholarship.

2. Issuance of certificates

●Certificates that are automatically issued

You can use the automatic certificate issuing machine to have the following certificates issued within the same day: certificate of enrollment, certificate of expected completion, certificate of academic record, certificate of completion, certificate of health and certificate of student travel discount. For conditions of issuance of these certificates, please refer to the following table.

Certificate	Conditions of issuance	Service hours and location of the automatic certificate issuing machine
Certificate of enrollment(Japanese/ English)	Not issued to non-regular students, including research fellows.	Service hours: 7:30 am to 7:00 pm Monday to Friday (excluding national holidays and year-end holidays) Please apply for certificates in advance, as the machine may not be working outside of normal office hours. Location: Entrance lobby of NAIST Library
Certificate of expected completion(Japanese/ English)	Students should have been enrolled in the master's course for at least six months or be in the second year in the doctoral course to apply for this certificate.	
Certificate of completion of Master's course (Japanese/ English) Certificate of academic records of Master's course (Japanese/ English)	Only available for those who have proceeded to the doctoral course internally from the master's course at NAIST.	

Certificate of academic record (Japanese/ English)	The certificate of academic record is an official certificate issued in the name of the Dean of the Graduate School that does not include failed courses.	
Academic record (Japanese/ English)	The academic record is issued for students to check their academic performance including failed courses.	
Certificate of health(Japanese only)	The certificate is issued only to those who have completed all annual health checkups. Students admitted to NAIST from the autumn semester will be issued the certificate after taking the annual health checkup in the following year.	
Certificate of student travel discount (Japanese only)	・Up to 10 certificates are issued per student annually. ・The certificate is valid for three months. (Not issued to non-regular students, including research fellows and students on leave of absence.)	

● Certificates issued over-the-counter

If you need certificates other than those issued by the automatic certificate issuing machine, apply at the Educational Affairs Division using the prescribed application form. You should apply well in advance, as some certificates take time to issue.

Certificate	Conditions of issuance	Contact office
Certificate for Japanese Government Scholarship students	Issued in the afternoon of the day following the application (except on Saturday, Sunday and national holidays).	International Student Affairs Section, International Affairs Division (Extension: 5909, 5087)
Certificate for international students (Ex. Certificate for Japanese Government Scholarship students)	Issued in the afternoon of the day following the application (except on Saturday, Sunday and national holidays).	International Student Affairs Section, International Affairs Division (Extension: 5909, 5087)
Certificate of occupancy in student dormitory	Issued in the afternoon of the day following the application (except on Saturday, Sunday and national holidays).	Student Support Section, Educational Affairs Division (Extension: 5920)
Certificate of Enrollment Personal Accident Insurance for Students Pursuing (PAS)	Issued in the afternoon of the day following the application (except on Saturday, Sunday and national holidays).	Student Support Section, Educational Affairs Division (Extension: 5920)

Commuter certificate

(1) Student commuter pass

To buy a student commuter pass between your place of residence and NAIST, fill in your student number, name and address in a commuter pass application form (*Tsuugaku teiki joshaken hakko hikae*) distributed at the beginning of each academic year, and present the form together with a commuter pass purchase form and your student ID card to a train station with a commuter pass office. (If there is no more space on your commuter pass application form, please apply at the Educational Affairs Division for an additional copy.)

The nearest Kintetsu stations designated by NAIST are Takanohara Station on the Kyoto Line, Gakuenmae Station on the Nara Line, and Gakken-Kita-Ikoma Station on the Keihanna Line.

(2) Student commuter passes for commuting to off-campus facilities

If you are going to work at off-campus facilities as part of your study at NAIST and need a student commuter pass for that purpose, you should apply at the Student Support Section of the Educational Affairs Division to have a commuter certificate issued. The application should be submitted at least one month before starting work at the off-campus facilities (the certificate takes longer to issue because we must obtain approval from the railway company).

* Non-regular students, including research fellows and students on leave of absence, cannot purchase student commuter passes.

Scholarships of private organizations

Students will be informed of scholarship programs offered by private organizations whenever applications are invited.

Tuition fee exemption

NAIST offers a tuition fee exemption program, under which students selected from among applicants are exempt from payment of all or part of tuition fees provided that: the student has difficulty in paying tuition fees for financial reasons and is recognized for academic excellence; or the student has extreme difficulty in paying tuition fees because of the death of the person who would normally have paid the tuition fee within one year prior to his or her admission to NAIST or due to damage by natural disasters to the student or the person who would normally have paid the tuition fee. For details about application procedures, please inquire at the Student Support Section of the Educational Affairs Division.

Personal Accident Insurance for Students Pursuing Education and Research（PAS）

Personal Accident Insurance for Students Pursuing Education and Research (Gakkensai) insures students enrolled in national, public, and private universities in Japan against unexpected physical injuries they may suffer while attending lectures, university events, extracurricular activities, taking a break on campus, or traveling to and from university or off-campus facilities for research/educational purposes. At NAIST, all students are required to take out the Gakkensai insurance as part of enrollment procedures.

For more details about the Gakkensai insurance, please refer to the booklet.

Course	Insurance premium	Insurance period
Master's course	1,750 yen	2 years
Doctoral course	2,600 yen	3 years

※Valid until March 31 in expected year of graduation for students admitted in April and until September 30 in expected year of graduation for students admitted in October.

Liability Insurance coupled with PAS

All students are also required to take out the Personal Liability Insurance for Students (Gakkenbai). This optional coverage insures students against third-party liability for damage caused by the student to others or their property while attending lectures, university events, extracurricular activities or traveling to and from university facilities, both on- and off-campus. For more details about the Gakkenbai insurance, please refer to the booklet.

Course	Insurance premium	Insurance period
Master's course	680 yen	2 years
Doctoral course	1,020 yen	3 years
Amount of coverage : Up to 100 million yen per incident		

※Valid until March 31 in expected year of graduation for students admitted in April and until September 30 in expected year of graduation for students admitted in October.

General Insurance for Students supplementary to Gakkensai

General Insurance for Students supplementary to Gakkensai provides comprehensive coverage against risks that may arise in campus life. At NAIST, students are not obligated to be covered by this insurance. If you wish to take out the insurance, please complete the necessary procedures individually. Brochures with details of this insurance are available at the Student Support Section of the Educational Affairs Division.

Student dormitories (Campus map 13)

Student dormitories are located within the campus of NAIST as shown below.

Outline of student dormitories

Type	Single-person occupancy	Couple occupancy	Family occupancy
Structure	Five-story reinforced concrete building	Five-story reinforced concrete building	Five-story reinforced concrete building
No. of residential units	559	50	10
Floor area	13 m^2	36.98 – 41.45 m^2	51.56 m^2
Fixtures	Desk, bed, mini kitchen, toilet, etc.	Desk, kitchen, toilet, bath, laundry machine, air conditioner, etc.	Desk, kitchen, toilet, bath, laundry machine, air conditioner ,etc.
Common facilities	Bath, laundry, lounge, etc.	———	———
Dormitory fee	5,900 yen/month	11,900 yen/month	14,200 yen/month
Common service charge	4,100 yen/month	600 – 1,100 yen/month	1,100 yen/month
Utility charge	To be paid by the occupant	To be paid by the occupant	To be paid by the occupant

Dwellings rented by NAIST for students

NAIST also rents apartment complexes (Nakatomi Daisan Danchi, Tomio Danchi and Heijo Daiichi Danchi) owned by the Urban Renaissance Agency, and rents them out to students upon application. If you are interested, please inquire at the Student Support Section of the Educational Affairs Division for details.

Parking a car and bicycle

1. Commuting by car

You are not allowed to drive a car on the premises of NAIST. Please park your car in the public parking lot in the Takayama District, north of NAIST. The parking fee must be paid in cash (300 yen per day) or using a parking pass. Please note that the first time you buy a parking pass, you should buy it at the Foundation for Nara Institute of Science and Technology (in Takayama Science Plaza) at the north of the public parking lot in the Takayama District. Anytime after that, you can buy the pass at the convenience store on the first floor of the University Union.

Parking pass fee (for students): 1,500 yen per month, 4,000 yen per three months, 7,500 yen per six months

2. Commuting by bicycle and motorcycle

You are not allowed to ride a bicycle or motorcycle on the premises of NAIST. Please park your bicycle or motorcycle in the public parking lot in the Takayama District, north of NAIST. Parking is free.

If you wish to use the parking lot, you must register at the Student Support Section of the Educational Affairs Division. Parking of bicycles and motorcycles in the parking lot without registration constitutes illegal parking, and such bicycles and motorcycles will be removed.

National museums campus members

NAIST has joined the campus members system. The campus members system is a cooperative system between national museums and universities which aims to provide students with the opportunity and facilities to study culture and history through the sharing of the museums collections of cultural assets.

Holders of NAIST Student ID cards (both regular and non-regular students) are allowed free entry to the regular exhibitions including featured exhibitions at the Kyoto National Museum and Nara National Museum as many times as they wish. Or discount rate applies to the special exhibition. For more details about other benefits, please refer to the website of NAIST.
(http://www.naist.jp/campus-student/e02_06_j.html)

Students' Cultural Activities and Events

As part of the cultural activities offered, we organize an annual field trip to Nara to visit historic sites, shrines, temples, and museums in order to cultivate ethical values and sophistication as human beings and as researchers, scientists, and engineers.

Many international students participate in this trip every year and the trip is now a venue for international exchange between Japanese and international students. Students are welcome to participate (details will be sent via email).

[Destinations in the last three years]

[Fall 2016] Todai-ji Temple, Kasuga Taisha Shrine, Kofuku-ji Temple, Nara National Museum in Nara
[Spring 2016] Horyu-ji Temple, Saidai-ji Temple in Nara
[Fall 2015] Todai-ji Temple, Kasuga Taisha Shrine, Kofuku-ji Temple in Nara
[Spring 2015] Takamatsuzuka Tomb and Ishibutai Tomb in the Nara/Asuka areas
[Fall 2014] Yakushi-ji Temple in Nara (preaching, copying sutras, worship)
[Spring 2014] Horyu-ji Temple, Chugu-ji Temple, Hoki-ji Temple in Nara

Student welfare facilities

1. University Union (Campus map 3)

University Union houses a restaurant, tea room, convenience store, and healthcare center for the welfare of students and faculty members of NAIST.

2. Social venue for researchers: Guesthouse Sentan (Campus map 7)

Students and faculty members of NAIST can use the facilities of Guesthouse Sentan as outlined below. For more details, please refer to the website of NAIST.
(http://www.naist.jp/campuslife/information/welfare.html)

Facilities	Period of use/service hours	Where to apply
Accommodation	Check-in time: after 3:00 pm Check-out time: before 11:00 am	Welfare Section of the Personnel Division Extension: 5033 E-mail: fukuri@ad.naist.jp
Meeting room	Open from 9:00 am to 9:00 pm (Closed from December 29 to January 3)	
Fitness room	Open from 9:00 am to 10:00 pm	Application is not necessary.

3. Sports facilities

Students and faculty members of NAIST may use the following sports facilities for free.

Facilities	Open hours	Selection by drawing
Athletic field	7:00 am to sunset	Successful applicants are selected by ballot, which is held on the 20th day of the preceding month (or the following weekday if the day falls on a Saturday, Sunday or national holiday). Venue of ballot: Lobby on the first floor, Interdisciplinary Frontier Research Complex No.2 Time of ballot: 9:00 am
Volleyball/basketball court	7:00 am to 10:00 pm	
Tennis court	7:00 am to sunset	
Tennis court (with lighting)	7:00 am to 9:00 pm	

You can also rent sporting goods for tennis, softball, etc. and barbecue equipment.

For details about using the sports facilities, please inquire at the Student Support Section of the Educational Affairs Division.

4. Takayama Science Plaza

Takayama Science Plaza, operated by the Foundation for NAIST, adjoins NAIST, which houses a restaurant and seminar rooms.

Other matters

1. Counter hours of the Educational Affairs Division

8:30 am – 5:30 pm (except Saturdays, Sundays, national holidays, foundation day of NAIST, Office closing days for summer, and December 29 to January 3)

In case of emergency, you can enter the office, if open, even before or after the counter hours.

2. Notification from NAIST

NAIST notifies students of necessary information by e-mail or through the bulletin board. Private notices will usually be sent by e-mail. Please check incoming e-mails carefully: If you overlook important information sent by NAIST such as a request to submit an application, you may suffer a disadvantage.

3. Website for students [https://ad-info.naist.jp/member/]

You can access the website for students by clicking “Internal Only” on NAIST’s website. This website contains various useful information, including announcements (the latest updates), Academic affairs (curriculum, notice to students for the academic records, changes of class schedule), an online English study system（ALC NetAcademy） and job information.

4. Consult Faculty members in charge of subjects if students cannot attend lectures and are possibility not to get credits due to unavoidable reasons including delayed public transportation, conference presentation, employment examinations, mourning, infectious disease and so on.

▪ Campus Map

1. Administration Bureau
2. Library
3. University Union / Health Care Center
4. Interdisciplinary Frontier Research Complex No.2
5. Millennium Hall
6. Guesthouse Sentan
7. Graduate School of Information Science / Information Initiative Center
8. Graduate School of Biological Sciences / Research and Education Center for Genetic Information
9. Animal Experimentation Facility
10. Botanical Greenhouses
11. Graduate School of Materials Science / Research and Education Center for Materials Science
12. Bio Nano Process Laboratory
13. Interdisciplinary Frontier Research Complex No.1
14. Student Dormitories / Staff Residences
15. Green Lab
16. Main Entrance
17. Administration Bureau Annex

Regulations
of
Nara Institute of Science and Technology

April 1, 2004
Regulations No. 1

Table of Contents

I. General Provisions

Article 1 (Purpose)

Nara Institute of Science and Technology ("NAIST") aims to promote cutting-edge research activities and train skilled personnel through advanced education based on the results of such research activities, thereby contributing to the advancement of science and technology and prosperity of society.

Article 2 (Self-assessment)

1. NAIST shall inspect and assess educational and research activities conducted internally ("Self-assessment") and make the results of the Self-assessment publicly available, in order to raise NAIST'S education and research standards and achieve the goals and social mission described in the foregoing article.
2. NAIST shall have the results of the Self-assessment examined by third party reviewers.
3. Matters concerning implementation of the Self-assessment shall be provided for separately.

Article 3 (Active provision of information)

NAIST shall actively provide information on its educational and research activities through publications or other suitable means.

II. Educational and Research Organization

Article 4 (University with graduate school curriculum)

NAIST is a university with graduate school curriculum only.

Article 5 (Graduate School and department)

The Graduate Schools of NAIST have the graduate schools and departments shown in the following table.

Graduate School	Department
Information Science	Information Science
Biological Sciences	Biological Sciences
Materials Science	Materials Science

Article 6 (Objectives of Graduate Schools)

Respective Graduate Schools shall have the following objectives concerning educational and research activities.

(1) Graduate School of Information Science

Promotes advanced research on information science, offers systematic education programs covering diverse fields related to information science (including information processing technology for assisting senses and judgments, technology for constructing large-scale information systems, technology for constructing and operating reliable information networks, and extensive interdisciplinary research involving information and life sciences), and thereby produces researchers capable of undertaking R&D to further today's information society future and engineers with advanced expertise.

(2) Graduate School of Biological Sciences

Promotes state-of-the-art research for elucidating the basic principles of life phenomena and biological diversity on molecular, cellular, and individual levels, and for utilizing these results to resolve the problems faced by the human society, offers systematic education programs covering diverse fields related to biological sciences, and thereby produces creative and leading-edge researchers and engineers with advanced expertise capable of promoting and utilizing biological sciences

(3) Graduate School of Materials Science

Elucidates structures and functions of materials on molecular, atomic, and electron levels, promotes creative research on materials science, and through systematic education programs covering diverse fields related to materials science thereby produces human resources (i) who are keenly interested in the problems faced by human society and the needs of industrial circles and are capable of undertaking creative and advanced research in materials science and interdisciplinary domains, and (ii) who assume active roles in fields of technological innovation and diverse sciences and technologies

Article 7 (Faculties)

1. The Graduate Schools have academic faculties.
2. Matters relating to academic faculties shall be provided for separately.

Article 8 (Courses and their purposes)

1. The Graduate Schools of NAIST have doctoral courses.
2. Each doctoral course consists of a first course (“Master’s Course”) and a latter course (“Doctoral Course”).
3. The Master’s Course aims to equip students with profound academic knowledge from broad perspectives, and help students develop the ability to conduct advanced research in their fields of specialty or engage in professions that require highly specialized skills.
4. The Doctoral Course aims to help students develop the ability to conduct advanced research activities on their own, and research skills of the highest level necessary for highly sophisticated professions, and to foster profound academic knowledge indispensable for such research activities and professions.

Article 9 (Information Initiative Center)

1. NAIST has an Information Initiative Center.
2. Information Initiative Center has a NAIST Library.
3. Matters relating to the Information Initiative Center shall be provided for separately.

Article 10 (Collaborative educational and research institutions)

1. NAIST has the following common educational and research institutions:

(1) Research and Education Center for Genetic Information

(2) Research and Education Center for Materials Science

2. Matters relating to the collaborative educational and research institutions shall be provided for separately.

Article 11 (Health Care Center)

1. NAIST has a Health Care Center.

2. Matters relating to the Health Care Center shall be provided for separately.

III. President, Vice President, Deans, etc.

Article 12 (Organization)

1. The organization of NAIST consists of the following members:

President

Vice President

Deans of Graduate Schools

Vice Deans of Graduate Schools

Director of Information iniTiative Center (ITC)

Director of Center for Frontier Science and Technology

Directors of collaborative educational and research facilities

Director of Research and Education Center for Genetic Information

Director of Research and Education Center for Materials Science

Director of Health Care Center

Faculty members

General staff members

Other staff members2. The faculty members of NAIST consist of professors, associate professors, lecturers, assistant professors, and research associates.

3. General staff members of NAIST consist of administrative staff, technical staff, nurses and academic staff.

Article 13 (President)

The President shall be responsible for management of internal affairs at NAIST and supervision of all faculty and staff members thereof.

Article 14 (Vice President)

The Vice President shall be responsible for supporting the President and, upon receiving authorization from the President, be responsible for management of affairs at NAIST.

Article 15 (Deans of Graduate Schools)

Each Dean shall be responsible for the administration of his or her Graduate School and the collaborative educational and research facilities associated therewith.

Article 16 (Vice Deans of Graduate Schools)
Each Vice Dean shall be responsible for supporting the Dean of his or her Graduate School.

Article 17 (Director of Information iniTiative Center (ITC))
The Director of the Information iniTiative Center (ITC) shall be responsible for administration of the Information iniTiative Center (ITC).

Article 18 (Directors of the collaborative educational and research facilities)
Directors of the collaborative educational and research facilities shall be responsible for affairs of their respective facility.

Article 19 (Director of Health Care Center)
The Director of the Health Care Center shall be responsible for its administration.

IV. Faculty Council

Article 20 (Faculty Council)
1. Each Graduate Schools has a Faculty Council.
2. The Faculty Councils shall be responsible for expressing opinions concerning the following items which the president deliberates:
(1) Student admission and course completion
(2) Degree conferment
(3) Arrangement of curriculum
(4) Student recognition and punishment
3. In addition to the items stipulated in the foregoing subsection, the Faculty Councils may also discuss the following areas concerning the education and research governed by the President and the Deans, and present opinions concerning these upon request of the president and/or Deans.
(1) Matters relating to student registration at and credits from other institutions
(2) Matters relating to the acceptance of special auditing students, special research students, non-degree students, research students and undergraduate internship students
(3) Matters relating to departmental agreements with institutions and private corporations
(4) Matters relating to laboratory establishment, reorganization and closing
(5) Matters relating to required Graduate School evaluation and assessments pertaining to university appraisal
(6) Other matters relating to education and research
4. Each of the Faculty Councils shall consist of full-time and associate professors engaged in educational or research activities of the relevant Graduate School. However, the Dean of the

Graduate School may invite faculty members involved in educational or research activities of other Graduate Schools to join its Faculty Council when deemed necessary.

5. Notwithstanding the provision of the foregoing subsection, members of the Faculty Council who are on an official trip abroad, on leave of absence or absent for other reasons may be removed from the Faculty Council.

6. The Dean of each Graduate School shall serve as Chairperson of the respective Faculty Council.

7. The Chairperson of each Faculty Council shall preside over the council's meetings.

8. In case the Chairperson has become unable to serve his or her role, the Vice Dean shall act as the chairman on his or her behalf.

9. For the Faculty Council meetings and resolutions to be valid, a majority of all the members thereof shall be present.

10. Resolutions at Faculty Council meetings shall be passed with assenting votes of a majority of the faculty members present at the meeting. In case of a tied vote, the Chairperson shall cast the deciding vote.

11. The Dean may invite individuals who are not Faculty Council members to attend council meetings if he or she deems it necessary to do so.

V. Admission Capacity and Enrollment Capacity

Article 21 (Admission and enrollment capacity)

The admission capacity and enrollment capacity of each Graduate School of NAIST shall be as shown in the attached table.

VI. Academic Year, Semesters, and Closed Days

Article 22 (Academic year)

1. At NAIST, the academic year shall commence on April 1 and end on March 31 of the following year.

2. Notwithstanding the provision of the foregoing subsection, the academic year shall commence on October 1 and end on September 30 of the following year for students who are admitted to NAIST in the autumn semester.

Article 23 (Semesters)

The academic year specified in the foregoing article shall consist of:

(1) Spring semester (from April 1 to September 30), and

(2) Autumn semester (from October 1 to March 31 of the following year).

Article 24 (Closed days)

1. NAIST shall be closed on the following days:

(1) Sunday and Saturday

(2) Days designated as national holidays under the Public Holiday Law (1948 Law No. 178)

(3) Anniversary of the founding of NAIST (October 1)

(4) Spring, summer and winter holidays

2. Details about the spring, summer and winter holidays in the foregoing subsection (4) shall be provided for separately.

3. The President may designate temporary closed day(s) if he deems it necessary to do so..

4. Regardless of Article 1, classes may be held on holidays when deemed necessary for educational purposes by the dean.

VII. Admission

Article 25 (Applicant qualifications)

1. Admission to the Master's Course is granted to individuals who:

(1) Have graduated from an university stipulated in Article 83-1 of the School Education Law (1947 Law No. 26)

(2) Have been awarded a bachelor's degree pursuant to Article 104-4 of the School Education Law

(3) Have completed the equivalent of a 16-year course of school education abroad

(4) Have taken a correspondence course in Japan offered by a foreign school, thereby completing a 16-year course of school education of the foreign country where the school is located

(5) Have completed a course of an educational institution that is recognized as offering a regular curriculum of a foreign university in compliance with the school education system of the country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, provided that completion of the said course shall constitute completion of a 16-year course of school education in the country

(6) Have completed the specialized course offered by a special training school that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, on or after the day specified by the Minister, provided that the said course shall be a four-year or longer course, and meet all the other criteria set forth by the Minister

(7) Have been designated by the Minister of Education, Culture, Sports, Science and Technology, in accordance with Article 155-1 (6), of the Enforcement Regulations for the School Education Law (1947 Ordinance of the Ministry of Education No. 11)

(8) Fall into any of the following categories and are recognized by NAIST as having earned the necessary credits with outstanding academic grades:

(a) Individuals who have been enrolled in university for at least three years

(b) Individuals who have completed the equivalent of a 15-year course of school education abroad

(c) Individuals who have taken a correspondence course in Japan offered by a foreign school, thereby completing a 15-year course of school education of the foreign country where the school is located

(d) Individuals who have completed a course of an educational institution that is recognized as offering a regular curriculum of a foreign university in compliance with the school education system of the country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, provided that completion of the said course shall constitute completion of a 15-year course of school education in the country

(9) Have been enrolled in graduate school before pursuant to Article 102-2 of the School Education Law and are recognized by NAIST as having adequate academic ability to be educated at the Graduate School thereof

(10) Have been recognized by NAIST through an individual entrance screening as having academic ability equivalent to or greater than that of a university graduate and are at least 22 years of age

2. Admission to the Doctoral Course is granted to individuals who:

(1) Have been awarded a master's degree or a professional degree specified in Article 5-2 of the Rules for Degrees (1953 Ordinance of the Ministry of Education No. 9) pursuant to Article 104-1 of the School Education Law ("Professional Degree")

(2) Have been awarded a master's degree or other degree equivalent to a Professional Degree abroad

(3) Have been awarded a master's degree or other degree equivalent to a Professional Degree by completing a correspondence course in Japan offered by a foreign school

(4) Have been awarded a master's degree or other degree equivalent to a Professional Degree by completing a course of an educational institution in Japan that is recognized as offering a regular curriculum of a foreign graduate school in compliance with the school education system of the country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology

(5) have completed their degree by March 2016 by graduating from the United Nations University established under the resolution of the United Nations General Assembly on December 11, 1972 as stipulated in subsection 2, Article 1 of the Special Measures Incidental to Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University Act (Act No.72 of 1976).

(6) have been recognized as having achieved at least the academic equivalence of a Master's degree through an educational program of ① a foreign educational institute, ② educational institutions which have received the designation in (4) above, or ③ the United Nations University and have passed the equivalent examination and screening process as stipulated in

the subsection 2, Article 16 of the Standards for the Establishment of Graduate School (Act No. 28, 1974).

(7) Have been designated by the Minister of Education, Culture, Sports, Science and Technology, in accordance with Article 155 (6), of the Enforcement Regulations for the School Education Law

(8) Have been recognized by NAIST through an individual entrance screening as having academic ability equivalent to or greater than that of a master's degree or Professional Degree holder and are at least 24 years of age

3. Methods for implementing entrance screening, etc., set forth in Paragraph 1 (10) and Paragraph 2 (6), hereof shall be stipulated separately by respective Graduate Schools.

Article 26 (Timing of admission)

Students shall be admitted to NAIST at the beginning of each semester.

Article 27 (Application for admission)

To apply for admission to NAIST, an admission application form shall be submitted together with designated documents to the President of NAIST.

Article 28 (Screening)

Applicants for admission to NAIST shall be screened by the procedures set forth separately.

Article 29 (Enrollment procedures and admission)

1. Applicants who have received notification of acceptance as a result of the screening specified in the foregoing article shall submit the designated documents to be admitted to NAIST.

2. The President shall admit applicants to NAIST upon completion of the procedures set forth in the foregoing subsection.

Article 30 (Admission to Doctoral Course)

Subject to screening by the Faculty Council of the relevant Graduate School, the President shall admit students to the Doctoral Course upon completion of the Master's Course of NAIST.

VIII. Standard Terms of Study and Maximum Years of Enrollment

Article 31 (Standard terms of study)

The standard terms of study at the Master's Course and Doctoral Course shall be two years and three years, respectively.

Article 32 (Maximum years of enrollment)

Maximum years of enrollment in the Master's Course and Doctoral Course shall be four years and six years, respectively.

IX. Education at Graduate Schools

Article 33 (Graduate school education)

Education at the Graduate Schools shall be provided by means of lectures on subjects and guidance on writing theses ("Research Guidance").

Article 34 (Courses, credits, and registration procedures)

The courses to be taught as set forth in the foregoing article, the credits allotted to the said courses, and registration procedures shall be provided for separately by each Graduate School.

Article 35 (Calculation of credits)

1. Based on the general rule that one credit shall be composed of a total of 45 hours of studying by students, the following basis shall be adopted for calculating credits at NAIST, taking into consideration the educational effects and hours required for off-campus studying, which vary depending on how the subject is taught:

(1) For lectures and seminars, one credit shall require from fifteen up to thirty class hours.

(2) For experiments and practical classwork, one credit shall require from thirty up to forty-five class hours.

(3) When a combination of two or more methods of lectures, seminars, experiments, or practical classwork is employed for a course, one credit shall consist of class hours determined in light of the standards stipulated in the foregoing two subsections, in accordance with the combination of such methods.

2. Notwithstanding the provision of the foregoing subsection, the number of credits to be allotted to thesis writing and thematic research may be determined upon consideration of the amount of study needed therefor, if it is deemed appropriate to award credits based on an evaluation of the results of the study.

Article 35-2 (Publication of Standards for Evaluating Grades)

1. A Graduate School shall present to its students, in advance, a clear outline of the methodology and contents of classes and Research Guidance, as well as a class and Research Guidance schedule for the year.

2. A Graduate School shall, when assessing its students' academic achievement and theses and approving their completion, present them with a clear outline of the standards therefor, in advance, so as to ensure objectivity and rigidity, and shall conduct an assessment and approval process appropriately in accordance with said standards.

Article 35-3 (Organized Training for Improving Educational Contents)

1. NAIST shall conduct organized training and research for improving the contents and

methodology used to give classes and Research Guidance.
2. Necessary matters related to organized training for improving educational contents shall be stipulated separately.

Article 36 (Awarding of credits)
Students who have completed each course can earn credits therefor upon passing the examination or acceptance of a research report.

Article 37 (Studying in another Graduate School of NAIST)
1. Students may take a course offered by another Graduate School of NAIST if the Dean of their Graduate School deems it educationally beneficial to do so.
2. Course credits that students have earned pursuant to the foregoing subsection may be counted toward degree credits specified in Article 41 or Article 42 to the extent permitted by their Graduate School.
3. Matters relating to taking of courses of other Graduate Schools shall be provided for separately.

Article 38 (Studying in another graduate school outside of NAIST)
1. Contingent on prior consultation with the graduate school offering classes, students may take a course offered by another graduate school outside of NAIST if the Dean of the their Graduate School deems it educationally beneficial to do so, subject to screening by the Faculty Council of the Graduate School.
2. Course credits that students have earned pursuant to the foregoing subsection shall be treated as credits earned internally, provided that the number of such credits shall not exceed ten.
3. The period of studying at another graduate school pursuant to subsection 1 of this Article shall be counted toward the period of study at NAIST.
4. The provisions of the foregoing three subsections shall apply to cases in which students take classes from ① a correspondence program offered by a foreign school in Japan ② a foreign graduate school in compliance with the school education system of that country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, or ③ the United Nations University graduate program.
5. Matters relating to taking of courses of other graduate schools shall be provided for separately.

Article 38-2 (Approval of credits for courses completed at a foreign university during a leave of absence)
1. Students may earn credits for courses completed at foreign universities during a leave of absence if the Dean of their Graduate School deems it educationally beneficial to do so, subject

to screening by the Faculty Council of the Graduate School.

2. Course credits that students have earned pursuant to the foregoing subsection shall be treated as credits earned internally, provided that the number of such credits shall not exceed ten.

Article 39 (Treatment of credits earned prior to admission to NAIST)

1. Credits that a student has earned at another graduate school prior to admission to NAIST, including credits that have been earned by the student as a non-degree student as defined in the Standards for the Establishment of Graduate Schools (1974 Ordinance of the Ministry of Education No. 28), may be treated as credits that have been earned by the student at NAIST after his or her admission thereto, if the Dean of the their Graduate School deems it educationally beneficial to do so, subject to screening by the Faculty Council of the Graduate School.

2. The number of credits that have been earned at another graduate school but are treated as having been earned at NAIST pursuant to the foregoing subsection shall not exceed ten.

3. Other matters relating to credits earned prior to admission to NAIST shall be provided for separately.

Article 40 (Research Guidance at another graduate school)

1. Contingent on prior consultation with the relevant graduate school or research institution, students may receive Research Guidance offered by another graduate school or research institution outside of NAIST as needed if their Dean deems it educationally beneficial to do so, subject to screening by the Faculty Council of their Graduate School. However, the period during which students enrolled in the Master's Course are allowed to receive Research Guidance at another graduate school or research institution shall not exceed one year.

2. Research Guidance that students receive from another graduate school or research institution pursuant to the foregoing subsection may be treated as Research Guidance received by the students at the Graduate School of NAIST.

3. The period during which students receive Research Guidance pursuant to subsection 1 of this Article shall be counted toward the period of study at NAIST.

4. Matters relating to Research Guidance at another graduate school or research institution shall be provided for separately.

X. Course and Degree Requirements

Article 41 (Requirements for completion of Master's Course)

1. To complete the Master's Course, students shall have been enrolled in the Master's Course for the standard term of study at the shortest, earn at least thirty credits in the subjects

designated by their Graduate School, receive necessary Research Guidance, and pass the master's thesis examination or final examination. However, students who have achieved outstanding research results may complete the Master's Course after having been enrolled in the said course for one year at the shortest, instead of the standard term of study.
2. Pursuant to the provision of the foregoing subsection, an examination of research results on specified themes may be conducted in place of the master's thesis examination if the Dean of the relevant Graduate School deems it appropriate to do so.

Article 42 (Requirements for completion of Doctoral Course)
1. To complete the Doctoral Course, students shall have been enrolled in the Doctoral Course for the standard term of study at the shortest, receive necessary Research Guidance, and pass the doctoral thesis examination or final examination. However, students who have achieved outstanding research results may complete the Doctoral Course after having been enrolled in the said course for one year at the shortest, instead of the standard term of study.
2. The part of the provision of the foregoing subsection that reads "However, students who have achieved outstanding research results may complete the Doctoral Course after having been enrolled in the said course for one year at the shortest, instead of the standard term of study" shall read "However, students who have achieved outstanding research results may complete the Doctoral Course after having been enrolled in the said course for the period of three years less the period of enrollment in the Master's Course at the shortest, instead of the standard term of study," to apply to students who have completed the Master's Course at NAIST in one year at the shortest pursuant to subsection 1 of Article 41, or who have completed the master's course of another graduate school outside of NAIST taking between one and two years.
3. Notwithstanding the provisions of the foregoing two subsections, for students who have been admitted to the Doctoral Course after having been recognized as having academic ability equivalent to or greater than that of a master's degree holder pursuant to Article 156 of the Enforcement Regulations for the School Education Law, the requirements for completion of the Doctoral Course shall be: enrollment in the said course for three years at the shortest, receipt of necessary Research Guidance, and passing of the doctoral thesis examination or final examination. However, students who have achieved outstanding research results may complete the Doctoral Course after having been enrolled in the said course for one year at the shortest, instead of three years.

Article 43 (Approval of completion)
Approval of completion of the Master's Course and Doctoral Course shall be given by the President, subject to screening by the Faculty Council of the relevant Graduate School.

Article 44 (Awarding of degrees)
1. Students who have completed the Master's Course or Doctoral Course shall be awarded a

master's degree or doctoral degree, respectively.

2. In addition to the provision of the foregoing subsection, a doctoral degree shall be awarded to individuals who have submitted a doctoral thesis to NAIST, passed the doctoral thesis examination and been recognized as having academic ability equivalent to or greater than that of an individual who has completed the Doctoral Course at NAIST.

3. Matters relating to awarding of degrees shall be provided for separately.

Article 45 (Timing of completion)

1. The Master's Course and Doctoral Course shall be completed at the end of each semester.

2. Notwithstanding the provision of the foregoing subsection, the Master's Course and Doctoral Course may be completed during a semester if deemed necessary by the President.

Article 46 (Teaching qualifications)

1. Students who wish to obtain teaching qualifications shall earn the credits specified by the Teacher's Certificate Law (1949 Law No. 147) and the Enforcement Regulations for the Teacher's Certificate Law (1954 Ordinance of the Ministry of Education No. 26).

2. Teaching qualifications that can be obtained at the Graduate Schools of NAIST are as shown in the following table.

Graduate School	Department	Teaching qualification	Subject
Information Science	Information Science	High school teacher's qualification	Information
Biological Sciences	Biological Sciences	Junior high school teacher's qualification High school teacher's qualification	Science Science
Materials Science	Materials Science	Junior high school teacher's qualification High school teacher's qualification	Science Science

XI. Leave of Absence, Study Abroad, Readmission, Transfer from/to another School, Transfer to another Graduate School within NAIST, Withdrawal, and Expulsion.

Article 47 (Leave of absence)

1. A student who must be absent from school for three consecutive months or longer due to illness, or for other reasons deemed justifiable by the President, may take a leave of absence with President's permission, following deliberation by the Faculty Council of his or her Graduate School.

2. The President may order a student who is recognized to be too ill to attend school to take leave of absence.

3. When the grounds for the leave of absence have been resolved, the student may return to school with permission of the President.
4. The period of leave of absence shall be up to one year, provided, however, that the said period may be extended for up to another one year if there is any justifiable reason.
5. The period of leave of absence shall not exceed two years in total during enrollment in the Master's Course or Doctoral Course, respectively.
6. Notwithstanding the provision of subsections 4 and 5, a student may be given special permission to take a leave of absence if deemed appropriate by the President.
7. The period of leave of absence shall not be counted toward the standard term of study specified in Article 31 and the minimum years of enrollment specified in Article 32.

Article 48 (Study abroad)
1. A student who wishes to study at a graduate school or research institution abroad shall obtain permission of the President in advance.
2. The provisions of Article 38 and Article 40 shall apply for the treatment of credits earned during study abroad.

Article 49 (Readmission)
1. An individual who withdrew or was expelled from NAIST in the past and wishes to be readmitted in the Graduate School of NAIST may be permitted to do so by the President, subject to screening by the Faculty Council of the relevant Graduate School, only if doing so is deemed not to interfere in any way with the educational and research activities of the Graduate School.
2. If readmission is permitted pursuant to the provision of the foregoing subsection, the Dean of the relevant Graduate School shall decide whether to count the credits earned during the previous enrollment and years of the previous enrollment toward course requirements, subject to screening by the Faculty Council.

Article 50 (Transfer from another Graduate school)
1. A student who is enrolled in another graduate school outside of NAIST and wishes to transfer to NAIST may be permitted to do so by the President, subject to screening by the Faculty Council of the relevant Graduate School, only if doing so is deemed not to interfere in any way with the educational and research activities of NAIST.
2. If transfer to NAIST is permitted pursuant to the provision of the foregoing subsection, the Dean of the relevant Graduate School shall decide whether to count credits earned during the previous enrollment and years of the previous enrollment toward course requirements, subject to screening by the Faculty Council.
3. The provisions of the foregoing two subsections shall apply to cases in which students are enrolled in a foreign graduate school in compliance with the school education system of that

country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology (limited to schools stipulated in subsection 1, Article 102 of the School Education Law), or the United Nations University graduate program.

Article 51 (Transfer to a graduate school outside of NAIST)

1. A NAIST student who wishes to transfer to another graduate school outside of NAIST shall obtain permission of the President in advance.

2. If transfer to another Graduate School at NAIST is permitted pursuant to the provision of the foregoing subsection, the Faculty Council of the relevant Graduate School shall agree to count the credits earned during the previous enrollment and years of the previous enrollment toward course requirements.

Article 52 (Transfer to another Graduate School)

1. A student who is enrolled in a Graduate School at NAIST and wishes to transfer to another Graduate School at NAIST may be permitted to do so by the Dean of the Graduate School to which he or she wishes to transfer, subject to screening by the Faculty Council of the Graduate School, only if doing so is deemed not to interfere in any way with educational and research activities of the Graduate School.

2. If transfer to another Graduate School at NAIST is permitted pursuant to the provision of the foregoing subsection, the Faculty Council of the relevant Graduate School shall agree to count the credits earned during the previous enrollment and years of the previous enrollment toward course requirements.

Article 53 (Withdrawal)

A NAIST student who wishes to withdraw from NAIST shall obtain permission of the President in advance following deliberation by the Faculty Council of his or her Graduate School.

Article 53-2 (Expulsion)

A student shall be expelled from NAIST if he or she:

(1) Has been enrolled in NAIST for longer than the period specified in Article 32.

(2) Has been on leave of absence for longer than the period stipulated in Article 47, subsections 5 and 6.

(3) Has failed to pay the admission fee by the due date if the student has not been exempted from payment of the admission fee, has been exempted from payment of part of admission fee, has been allowed delayed payment of the admission fee, or has the payment exemption withdrawn.

(4) Has failed to pay the tuition fee by the due date and still not paid it even after receiving a reminder.

(5) Has been declared missing.

(6) Has deceased

XII. Entrance Examination, Admission and Tuition Fees

Article 54 (Amounts of the entrance examination, admission and tuition fees)
The amounts of the entrance examination, admission and tuition fees shall be as shown in the following table.

Entrance examination fee	Admission fee	Annual tuition fee
30,000 yen	282,000 yen	535,800 yen

Article 55 (Payment of the entrance examination fee)
1. Individuals who apply for admission, readmission or transfer to NAIST shall submit an application form and pay the entrance examination fee at the same time.
2. Notwithstanding the provision of the foregoing subsection, students who apply for admission by recommendation in accordance with Article 4 of MEXT Guidelines for International Scholarship Student System Implementation shall not have to pay entrance examination fees.

Article 56 (Payment of the admission fee)
1. Individuals who are to be admitted, readmitted or transferred to NAIST shall pay the admission fee by the due date specified by NAIST.
2. Notwithstanding the provision of the foregoing subsection, MEXT Scholarship Students (as defined in Article 2 of MEXT Guidelines for International Scholarship Student System Implementation) shall not have to pay admission fees.

Article 57 (Payment of the tuition fee)
1. Students shall pay the annual tuition fee in two equal installments for the spring semester (from April to September) and the autumn semester (from October to March of the following year).
2. The due dates of the tuition payment shall be in May and November except when delayed payment is permitted pursuant to the provision of Article 63.
3. Notwithstanding the provisions of the foregoing two subsections, students, by submitting an application, may pay the tuition fee for the autumn semester at the same time as paying the tuition fee for the spring semester.
4. Notwithstanding the provisions of subsections 1 and 2 above, students may, by submitting an application, pay the tuition fee for the spring semester or for the spring and autumn semesters of the year of admission, at the time when accepted for admission.
5. Notwithstanding the provision of subsection 1, MEXT Scholarship Students (as defined in Article 2 of MEXT Guidelines for International Scholarship Student System Implementation)

shall not have to pay tuition.

Article 58 (Amount and payment of the tuition fee in case of re-enrollment)
In case of re-enrollment, transfer from another school, and readmission ("Re-enrollment") during the spring or autumn semester, the tuition fee shall be paid in an amount of one twelfth of the annual tuition fee ("Monthly Fee") multiplied by the number of months from the month of Re-enrollment to the month preceding the next tuition payment. Payment shall be made in the month of Re-enrollment.

Article 59 (Amount of the tuition fee in case of completion of the course before the end of the academic year)
In case of completion of the course before the end of the academic year due to special circumstances, the tuition fee shall be paid in an amount of the Monthly Fee multiplied by the number of months of enrollment in NAIST.

Article 60 (Amount of the tuition fee in case of leave of absence)
1. Payment of tuition fee is not required during leave of absence.
2. The amount of the tuition fee for which payment is not required shall be the Monthly Fee multiplied by the number of months from the month following the leave of absence to the month preceding Re-enrollment.

Article 61 (Amount of the tuition fee in case of withdrawal)
1. In case of withdrawal, whether voluntary or forced, transfer to another school, or expulsion from NAIST during a spring or autumn semester, the tuition fee for the entire semester shall be paid.
2. The tuition of students which have been suspended shall be collected for the duration of the suspension.
3. Notwithstanding the provision of subsection 1, the tuition to be collected from students who have been removed from enrollment due to death or disappearance will be recalculated according to the number of months enrolled.

Article 62 (Exemption from payment of admission and tuition fees)
Students may be exempted from payment of all or part of the admission fee or allowed delayed payment thereof if he or she has difficulties paying the admission fee for financial reasons and also is recognized as having outstanding academic ability, or if he or she has other justifiable reasons.

Article 63
Students may be exempted from payment of all or part of the tuition fee or allowed delayed payment thereof if he or she has difficulties paying the tuition fee for financial reasons and also

is recognized as having outstanding academic ability, or if he or she has other justifiable reasons.

Article 64

Matters relating to exemption of payment of admission and tuition fees and delayed payment thereof shall be provided for separately.

Article 65 (Treatment of entrance examination, admission and tuition fees once paid)

1. Once paid, entrance examination, admission and tuition fees cannot be refunded.

2. Notwithstanding the provision of the foregoing subsection, the tuition fee shall be refunded in the following cases.

(1) If a student who paid the tuition fees for both the spring and autumn semester at the same time pursuant to the provision of Article 57 subsection 3 above is to withdraw from NAIST before September 30 of that school year, the tuition fee for the autumn semester shall be refunded.

(2) If a student who paid the tuition fee at the time when he or she was accepted for admission pursuant to the provision of Article 57-4 above declares his or her intention to decline the acceptance by the last day of the month preceding the admission, the amount equivalent to the paid tuition fee shall be refunded.

(3) If a student who paid tuition fees pursuant to the provision of Article 57 is to complete his or her course before the end of the academic year due to special circumstances, the amount of the paid tuition fee less the Monthly Fee multiplied by the number of months of enrollment shall be refunded.

(4) If a student who paid tuition fees is to take leave of absence, the amount specified in Article 60-2 shall be refunded.

(5) In the case of removal from enrollment due to death or disappearance, tuition paid shall be refunded after deducting for the partial enrollment period.

XIII. Special Auditing Students, Special Research Students, Non-Degree Students, Research Students and Undergraduate Internship Students

Article 66 (Special auditing students)

1. Contingent on consultation with the students' graduate school, students enrolled in another graduate school outside of NAIST, whether domestic or foreign, may be admitted to NAIST as special auditing students to take a course at the relevant Graduate School of NAIST if deemed beneficial for educational purposes by the Dean of the relevant Graduate School, subject to screening by the Faculty Council.

2. Matters relating to special auditing students shall be provided for separately.

Article 67 (Special research students)

1. Contingent on consultation with the students' graduate school, students enrolled in another graduate school outside of NAIST, whether domestic or foreign, may be admitted to NAIST as special research students to receive Research Guidance at the relevant Graduate School of NAIST if deemed beneficial for educational purposes by the Dean of the relevant Graduate School, subject to screening by the Faculty Council.

2. Matters relating to special research students shall be provided for separately.

Article 68 (Non-degree students)

1. Individuals who are not NAIST students but wish to study one or more elective subjects at the Graduate School of NAIST may be admitted to NAIST as non-degree students and awarded credits only if doing so is deemed not to interfere in any way with the educational and research activities of the Graduate School by the Dean of the Graduate School, subject to screening by the Faculty Council.

2. Matters relating to non-degree students shall be provided for separately.

Article 69 (Research students)

1. Individuals who wish to conduct research on a specific theme at a Graduate School of NAIST may be admitted to NAIST as research students only if doing so is deemed not to interfere in any way with the educational and research activities of the Graduate School by the Dean of the relevant Graduate School, subject to screening by the Faculty Council.

2. Matters relating to research students shall be provided for separately.

Article 69-2 (Undergraduate internship students)

1. Contingent on consultation with the students' university or institution, students enrolled in another university (including foreign universities) or technical college may be admitted to NAIST as undergraduate internship students to receive academic guidance in a NAIST graduate school if deemed beneficial for educational purposes by the Dean of the relevant Graduate School, subject to screening by the Faculty Council.

2. Matters relating to undergraduate internship students shall be provided for separately.

XIV. Rewards and Punishments

Article 70 (Rewards and punishments)

1. Students may be recognized by the President for outstanding achievements and valuable contributions, subject to screening by the Faculty Council.

2. The President may take disciplinary measures against students who have acted against the rules of NAIST or who have materially disturbed the educational and research activities of NAIST, following deliberation by the Faculty Council of the relevant Graduate School.

3. The disciplinary measures set forth in the foregoing subsection shall mean forced withdrawal, suspension from NAIST, and warning.
4, The period of suspension shall be subtracted from the maximum period of study stipulated in Article 32, but not added to the standard period of study stipulated in Article 31. However, if the period of suspension is less than three months, the semester shall be added to the standard period of study.

XV. Student Dormitories

Article 71 (Student dormitories)
1. NAIST has student dormitories.
2. Matters relating to the student dormitories shall be provided for separately.

XVI. Open Lectures

Article 72 (Open lectures)
1. NAIST may offer open lectures with a view to educating the public and contributing to cultural enrichment.
2. Matters relating to the open lectures shall be provided for separately.

XVII. Special Programs

Article 73 (Special programs)
1. NAIST may organize special programs for individuals who are not NAIST students and issue certificates certifying the successful participant's course completion.
2. Matters relating to the implementation of the foregoing subsection shall be provided for separately.

Supplementary provisions
(Effective date)
1. These Regulations shall come into effect on April 1, 2004.
(Transitional measures)
2. In case of amendment of the Regulations of the Nara Institute of Science and Technology, the Regulations before the amendment shall remain applicable to the students who are enrolled in NAIST as of March 31, 2004 ("Existing Students") and also to the students who are readmitted or transferred to NAIST after April 1, 2004 if they are in the same grade as the Existing Students.

Supplementary provision

These Regulations shall come into effect on April 1, 2005.

Supplementary provision

These Regulations shall come into effect on April 21, 2005, while the Regulations of the Nara Institute of Science and Technology as amended hereunder shall be applied from April 1, 2005.

Supplementary provision

These Regulations shall come into effect on November 17, 2005.

Supplementary provision

These Regulations shall come into effect on April 1, 2007.

Supplementary provision

These Regulations shall come into effect on January 24, 2008, while the Regulations of the Nara Institute of Science and Technology as amended hereunder shall be applied from December 26, 2007.

Supplementary provision

These Regulations shall come into effect on April 1, 2009.

Supplementary provision

These Regulations shall come into effect on April 1, 2010.

Supplementary provision

These Regulations shall come into effect on December 1, 2010.

Supplementary provision

These Regulations shall come into effect on December 1, 2010.

(Effective date)

1. These Regulations shall come into effect on April 1, 2010.

2. Notwithstanding the provision of revised Article 5, the Graduate School of Information Science Department of Information Processing, Department of Information Systems and Department of Bioinformatics and Genomics, along with Graduate School of Biological Science Department of Cell Biology and Department of Molecular Biology shall be maintained until the students enrolled in these departments as of March 31, 2011 are no longer enrolled.

(Enrollment capacity for 2011, 2012 school year)

3. Notwithstanding the provision of Article 21, the enrollment capacity for the 2011 and 2012 school years shall be as shown in the following table.

Fiscal Year	Graduate school	Department	Admission capacity		Enrollment capacity
			Master's Course	Doctoral Course	
2011	Information Science	Information Science	135	40	175
		Information Processing			96
		Information Systems			77
		Bioinformatics and Genomics			59
		Total	135	40	407
	Biological Sciences	Biological Sciences	125	37	162
		Cell Biology			81
		Molecular Biology			101
		Total	125	37	344
2012	Information Science	Information Science	135	40	350
		Information Processing			18
		Information Systems			14
		Bioinformatics and Genomics			11
		Total	135	40	393
	Biological Sciences	Biological Sciences	125	37	324
		Cell Biology			15
		Molecular Biology			19
		Total	125	37	358

(Transitional measures concerning attainable qualifications for teacher licensing at the Graduate Schools)

4. Notwithstanding the provision of revised Article 46 subsection 2, the types and subjects of teaching licenses attainable at the departments in supplementary provision 2 shall depend upon previously offered licensing.

Supplementary provision

These Regulations shall come into effect on April 1, 2011.

Supplementary provision

These Regulations shall come into effect on April 1, 2012.

Supplementary provision

These Regulations shall come into effect on June 1, 2012.

Supplementary provision

These Regulations shall come into effect on February 1, 2013.

Supplementary provision

These Regulations shall come into effect on April 1, 2013.

Supplementary provision

These Regulations shall come into effect on April 1, 2014.

Supplementary provision

These Regulations shall come into effect on December 1, 2014.

Supplementary provision

These Regulations shall come into effect on April 1, 2015

Supplementary provision

These Regulations shall come into effect on November 26, 2015

Schedule (supplementary to Article 21)

Graduate school	Department	Admission capacity		Enrollment capacity
		Master's Course	Doctoral Course	
Information Science	Information Science	135	40	390
Biological Sciences	Biological Sciences	125	37	361
Materials Science	Materials Science	90	30	270
Total		350	107	1,021

Regulations for Student Commendation of Nara Institute of Science and Technology

December 7, 2004
Regulations No. 89

Article 1 (Purpose)
The purpose of these Regulations is to stipulate matters relating to commendation of performance worthy of public recognition that has been achieved by students (including groups of students) of the Nara Institute of Science and Technology ("NAIST") pursuant to the provision of Article 70 of the NAIST Regulations.

Article 2 (Commendation criteria)
1. NAIST shall commend students for:
(1) Hard work in academic studies that sets a good example for other students;
(2) Remarkable performance achieved in academic and research activities;
(3) Remarkable performance achieved in social activities;
(4) Remarkable performance achieved in extracurricular and other activities; or
(5) Other conduct judged to be worthy of public recognition.
2. Students to be commended pursuant to the foregoing subsection shall include those who are dead at the time of commendation.

Article 3 (Nomination)
Administrative staff or the Dean of the relevant Graduate School shall submit a letter of nomination (Form No. 1 attached hereto) to the President to recommend a student who is deemed to meet any of the commendation criteria specified in the foregoing subsection for commendation.

Article 4 (Decision on commendation of student)
The President shall decide whether to commend the student based on the nomination specified in the foregoing article.

Article 5 (Commendation)
1. The President shall award a certificate of commendation (Form No. 2 attached hereto) to the student whom it was decided should be commended pursuant to the provision of the foregoing article.
2. The President may present a commemorative gift to the student in addition to the certificate of commendation specified in the foregoing subsection.

Article 6 (Timing of commendation)
The President shall determine the timing of commendation, in consideration of the timing of the degree conferring ceremony or the nature of the commendation.

Article 7 (Clerical work)
The Educational Affairs Division of the Planning and Academic Affairs Department shall be responsible for handling clerical work necessary for student commendations.

Article 8 (Miscellaneous provision)
Other matters relating to student commendations shall be provided for separately.

Supplementary provision
These Regulations shall come into effect on December 7, 2004.

Supplementary provision
These Regulations shall come into effect on November 15, 2006 and be retrospectively applied from April 1, 2006.

Supplementary provision
These Regulations shall come into effect on July 26, 2007 and be retrospectively applied from April 1, 2007.

Supplementary provision
These Regulations shall come into effect on April 1, 2015.

Regulations for NAIST Excellent Student Scholarship Program

September 21, 2010
Regulations No. 4

Article 1 (Objective)
These regulations provide for necessary matters regarding the scholarship program that is intended to help develop excellent human resources by giving incentives to and supporting excellent students of Nara Institute of Science and Technology (hereinafter referred to as "NAIST").

Article 2 (Name)
The name of the scholarship program shall be the NAIST Excellent Student Scholarship Program.

Article 3 (Qualified students)
Students qualified to receive scholarships under the scholarship program (hereinafter referred to as "qualified students") shall be students who are enrolled in the first year of a doctoral course at NAIST in an academic year in which qualified students are selected (hereinafter referred to as "the academic year") and whose academic performance is outstanding and whose character is excellent, excluding foreign students financed by the Japanese government and those selected for the NAIST International Scholar Program.

Article 4 (Maximum number of qualified students)
The maximum number of qualified students shall be 15 in each academic year.

Article 5 (Method of scholarship support)
The scholarship support shall be provided in the form of exemption from payment of all tuition fees for the academic year.

Article 6 (Timing of selecting qualified students)
Qualified students shall be selected in April.

Article 7 (Notification of the number of scholarship candidates subject to recommendation)

The President shall set the number of candidates for qualified students (hereinafter referred to as "scholarship candidates") subject to recommendation for each graduate school and notify the deans in advance.

Article 8 (Selection of scholarship candidates)

1. The deans shall set the criteria for screening scholarship candidates (hereinafter referred to as "the screening criteria"), announce on campus the screening criteria together with the number of candidates for qualified students, and solicit applications for scholarship candidates.
2. The deans shall select scholarship candidates from among the applicants based on the screening criteria set forth in the preceding paragraph, and recommend the scholarship candidates to the President, also providing the screening criteria and the order of recommendation.

Article 9 (Screening of qualified students)

1. The President shall set up a NAIST Excellent Student Screening Committee (hereinafter referred to as "the Committee") to screen qualified students based on the deans' recommendations.
2. The Committee shall consist of the following members:
(1) President
(2) Executive Director appointed by the President
(3) Vice President appointed by the President
(4) Deans
3. The Committee shall have a chairperson, who shall be the President.
4. The chairperson shall preside over the meetings of the Committee.
5. If the chairperson becomes unable to serve, a Committee member appointed by the chairperson in advance shall perform the duties of the chairperson.
6. If the chairperson finds it to be necessary, individuals other than Committee members set forth in Paragraph 2 shall be allowed to attend the Committee meetings.

Article 10 (Selection of qualified students)

1. The President shall select qualified students based on screening by the Committee.
2. The President shall notify the deans of the screening results, and announce the screening results on campus.

Article 11 (Commendation and presentation session)
The President shall commend qualified students, and shall host a presentation session by the qualified students.

Article 12 (Clerical work)
Clerical work regarding the scholarship program shall be undertaken by the Educational Affairs Division of the Planning and Academic Affairs Department.

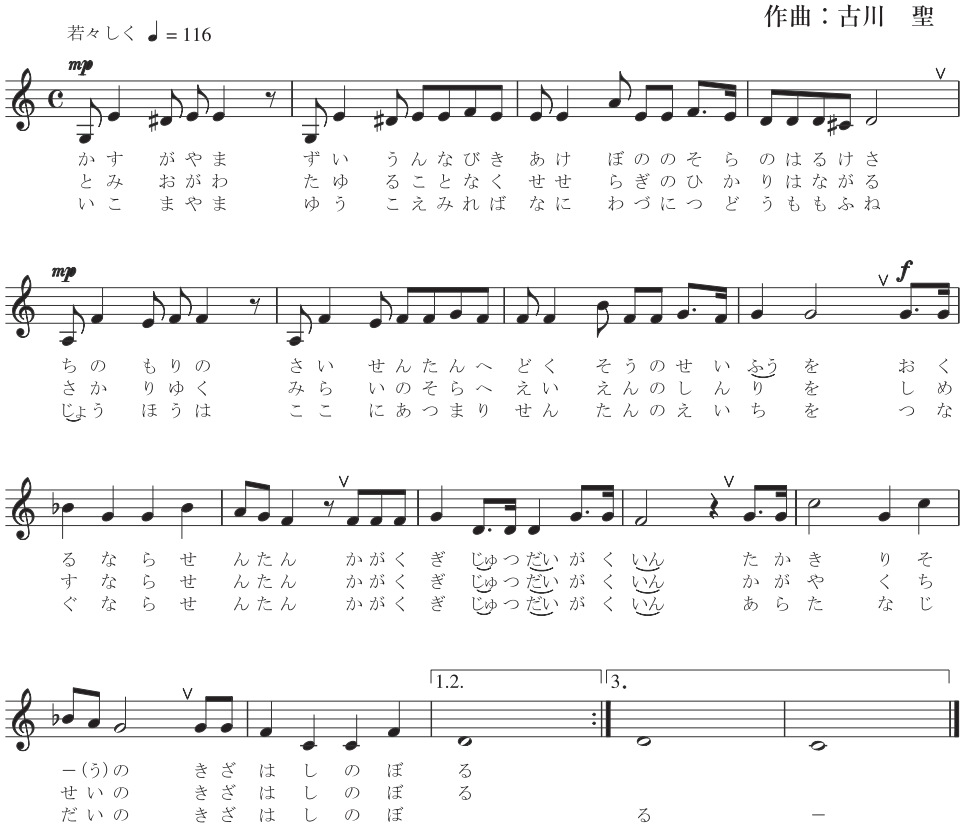
Article 13 (Miscellaneous provisions)
In addition to the matters provided for in these regulations, necessary matters concerning the scholarship program shall be provided for separately.

Supplementary provisions
1 (Effective date)
These regulations shall come into effect on October 1, 2010.
2 (Transitional measures)
For academic year 2010 alone, the scholarship support shall be provided in the form of exemption from payment of half the tuition fees for the academic year regardless of the provisions of Article 5, and qualified students shall be selected in October regardless of the provisions of Article 6.

Supplementary provisions
These regulations shall come into effect on April 1, 2015.

奈良先端科学技術大学院大学　学歌

作曲：古川　聖



奈良先端科学技術大学院大学学歌

一、春日山　瑞雲なびき
あけぼのの　空の遙けさ
知の森の　最先端へ
独創の　清風を送る
奈良先端科学技術大学院
高き理想の階のぼる

二、富雄川　絶ゆることなく
せせらぎの　光は流る
盛りゆく　未来の蒼天へ
永遠の　真理を示す
奈良先端科学技術大学院
輝く知性の階のぼる

三、生駒山　夕越え見れば
難波津に　集う百船
情報は　平城に集まり
先端の　叡知を繋ぐ
奈良先端科学技術大学院
新たな時代の階のぼる

原作:岡部　剛機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