Student Handbook 2017

Graduate School of Biological Sciences



平成29年度 カレンダー

4 April

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September

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平成30年(2018)

January

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March

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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.

OGraduate 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.

OGraduate 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.

OGraduate 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:

- 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:

- 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.

OGraduate 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

OGraduate School of Biological Sciences

Master's course

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

Bio-Expert course

- 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

- 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

O 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
- 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:

- 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
- 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.

Objectives

II Concept of the Graduate School of Biological Sciences

Objectives

The Graduate School of Biological Sciences aims to elucidate the basic principles of the phenomena of life and the diversity of life on molecular, atomic, and electron levels, and, with this knowledge, promote cutting-edge research to actively solve the issues facing humans and society, while conducting structured education covering the wide-ranging areas of study covered by bioscience. This research and education is performed with the goal of fostering creative and progressive researchers to deepen the understanding of bioscience and its application and capable technical experts possessing a high degree of knowledge and experience.

Education Courses according to Future Paths and Academic History and Achievements

The paths that students of the Graduate School of Biological Sciences wish to take after graduation are diverse and the fields in which graduates are expected to play a key role have expanded along with industrial and social changes. In response to this trend, the Graduate School of Biological Science has opened three new courses, two of which are the Bio-Expert Course and the Frontier Bio Course that opened in the 2004 academic year and the third course is the International Course that opened in 2010 to allow for the accreditation required for completion of English medium courses independently.

Among the three courses, the International Course is meant for students who were admitted based on the results of the entrance exam that is specifically designed for the International Course. Thus, the overview below only focuses on the Bio-Expert Course and the Frontier Bio Course.

<Course Selection>

Students choose to take either the Bio-Expert Course or the Frontier Bio Course after consulting with the education committee of the school and according to the criteria that were set forth based on the paths students wish to take after completion, entrance exam results and placement test results. Students who wish to work for a company after completing the master's program may choose the Bio-Expert Course. By the end of the spring semester of the second year, students of the Bio-Expert Course must choose to complete either a Research Experiment or Theme Research in consultation with their supervisor.

Among the students who are deemed to have sufficient basic academic capacity based on the entrance or opening test, those who wish to advance to the doctoral program may notify the education committee in April of the first year and choose the Frontier Bio Course. The master's degree is awarded to students who complete the master's program of the Frontier Bio Course as well.

<Change of Course>

Students confirm their course selection in the spring semester of the first year. If students wish to transfer to the Frontier Bio Course from the Bio-Expert Course, they will have to take the entrance exams for the doctoral program after completing the master's program at the Bio-Expert Course. Students are not allowed to switch from the Frontier Bio Course to the Bio-Expert Course as a general rule. However, if they have to switch for unavoidable reasons, they may apply to the education committee in consultation with their supervisor by the end of the spring semester of their second year.

Bio-Expert Course

Educational Goal

The Bio-Expert Course provides an opportunity for a flexible education that can be adapted to the diverse career paths that students can select. The focus of the course includes providing broad knowledge about bioscience that will be required in businesses, improvement of practical scientific English ability, and improvement of presentation and communication skills. Students will also have an opportunity to cultivate their ability to discuss the challenges and goals of science and technologies in industrial and social activities as well as relevant ethical values.

Instruction Plans and Policies

1. Selective Courses according to Academic History and Achievements and Systematic Bioscience Education based on Small Group Discussion

Students are placed in two different classes based on their academic history and achievements by taking their placement test results into consideration. The two groups take a basic lecture course on "Practical Biology for Advanced Science I and II" and the related labs, "Basic Bioscience Seminar I and II." Students will focus on understanding basic concepts and an overview of molecular and cellular biology instead of memorizing specific information. The labs are offered for students to build problem-solving skills by collaborating in small groups.

Students gain an overview of their research areas in the Graduate School of Biological Science's "Introduction of Current Biology" course. In the "Practical Bioscience Seminar I and II," students will get a deeper understanding on the theme that they and their labs are working on. The "Bio-Expert Seminar for Research Projects" is a training course where students learn about their research themes. Through these exercises, students learn broad knowledge about bioscience and improve their presentation and communication skills.

In the "Social Life Science" and "Advanced Genome Science and Technology" courses, students learn the ethics in biology and the connection between science and technology and society.

2. Reinforcing English Language Education

Students take the TOEIC tests immediately after starting Graduate School to learn and verify their English ability. According to the score of the TOEIC test, students are placed in different groups, and they will take a "Professional English" course that focuses on preparation for the TOEIC tests. The course is designed so that students can progress through levels I, II, and III during the two years of the master's program. Students take the TOEIC tests in April and January every year to see their improvement.

3. Lab Placement

Students are placed in labs based on their preference after learning about the research focus of each lab in the "Introduction to Current Biology" course. If there are too many applicants, placement is decided based on their entrance and placement test results. The placement is decided in mid-May when students start research work at each lab.

4. Support in Pursing Career Paths

Students learn about business activities in the "Bio-industrial Technology" course taught by research and development professionals in order to understand what type of knowledge and capabilities should be pursued in a master's program to be able to engage in research and development at a company.

5. Research Work for a Master's Thesis

Students choose either a "Research Experiment" or "Theme Research" for their master's thesis research work that starts after lab placement. While the "Research Experiment" focuses on experiments to address their research topic, "Theme Research" focuses on literature, including academic papers and books, and research and analysis of databases. In addition to guidance from their supervisor, students receive advice from multiple instructors including teachers that serve as advisors. In the latter half of the second year, students present an interim report to review the progress of their research work and to receive advice from teachers other than their supervisor.

6. Class Teachers and Teachers that Serve as Advisors

Other than advice given by their lab supervisor, students can belong to a class and receive additional advice from the class teachers on their academic options and student lives. There are also guidance services available from job advisors.

7. Continuing onto the Doctoral program

Bio-Expert Course students who decide to pursue a doctoral degree in the middle of their master's program may take and pass entrance exams to a doctoral program.

Curriculum Overview

1. Basic Specialized Education in the First Year (required)

"Practical Biology for Advanced Science I and II" (lecture) and "Basic Bioscience Seminar I and II" (lab) will be taught using the textbook *Essential Cell Biology* and students will learn the basic concepts of cellular and molecular biology that are required for bioscience research. After learning the basic knowledge and concepts on each topic in the lectures, students will review what they have

learned in the lecture in a group of five members and try to systematize the concepts in figures or other forms during the lab. They can internalize a "working knowledge" and learn group work techniques through these exercises.

While students gain deeper specialized knowledge by focusing on a research theme and working on the latest research in a lab, it is essential for them to position their research theme within the overall bioscience field and explain their specialty to scientists, engineers, and members of the general public, who are not familiar with the field. Students will receive an overview of bioscience as a whole in the "Introduction to Current Biology" course, understand the research work at the lab they are placed in during "Practical Bioscience Seminar I," and gain a deeper understanding of their research theme in the "Practical Bioscience Seminar II" course. Then, they will give a coherent presentation on their research theme to their classmates while gaining an understanding of other research themes in the "Bio-Expert Seminar for Research Project" course. Through these courses, students cultivate the communication skills required to succeed in society as a technologist.

Science and technologies can resolve a number of problems in society. However, the development of science and technologies can also bring about new social problems. The "Social Life Science" and "Advanced Genome Science and Technology" courses will teach how science and technology can resolve social issues while introducing students to science ethics by highlighting social issues caused by science and technology. Students will personalize and discuss these issues in group discussions and reflect on the responsibility of scientists.

2. Specialized Education (selective) in the First and Second Years

In the "Topics in Animal Science" course, "Frontiers of Plant Sciences" course, and "Advanced Systems Biology" course, students learn advanced research topics of the designated theme in each field. In the "Bio-industrial Technology" course, guest lecturers will be invited to teach about the current state of research and development in companies. Students will learn about sophistication and gain the intellectual ability, qualification and basic knowledge required to succeed in a company and envision smoother career development. In the "Lecture of Intellectual Property Right" course, students learn the rights of intellectual property.

Students who pursue the Research Experiment are required to earn at least three credits in two years and students who pursue Theme Research are required to earn at least five credits in two years.

3. English Language Education (required)

Three TOEIC tests are offered after starting the Graduate School to determine a student's progress in English language learning. Students are placed in different groups to take the "Professional English" course based on their TOEIC test results at the beginning of the Graduate School enrollment.

Frontier Bio Course

Educational Goal

The Graduate School of Biological Sciences launched the course Exploiting New Frontiers in Bioscience in 2002 for the 21st Century COE Program with the aim of becoming an international hub of advanced bioscience research and education. The Graduate School has especially made solid achievements in the doctoral program education. A five-year integrated education course to foster independent basic researchers was started in 2004 to reinforce and expand this initiative. Students who take this course can benefit from a simpler internal screening procedure for proceeding from the master's program to the doctoral program. They are now able to make full use of the five-year standard term of study to receive a graduate level education.

The Frontier Bio Course emphasizes students' research capability to identify issues to be addressed and figuring out solutions for the issues. This capability will be important when a student wants to be a successful independent researcher. The Course also emphasizes gaining extensive knowledge on bioscience as well as improving presentation and communication skills including in English. Students will also be able to cultivate the capacity and ethical values to reflect on issues and the ideal state of science and technology in the research activities.

Instruction Plans and Policies

1. Selective Courses according to Academic History and Achievements and Systematic Bioscience Education based on Small Group Discussion

Students are placed in two difference classes based on their academic history and achievements by taking placement test results into consideration. The two groups take a basic lecture on "Practical Biology for Advanced Science I and II" and a related lab, "Basic Bioscience Seminar I and II." Students focus on understanding basic concepts and an overview of cellular and molecular biology instead of memorizing specific information. Labs are offered for students to build problem-solving skills by collaborating in small groups.

Students receive an overview of their research areas in the Graduate School of Biological Science's "Introduction to Current Biology" course. In the "Practical Bioscience Seminar I and II," students will gain a deeper understanding of the theme they and their labs are working on. The "Frontier Bioscience Seminar for Research Projects" is a training course where students learn about their research themes. Through these exercises, students gain a broad knowledge of bioscience and improve their presentation and communication skills.

In the "Social Life Science" and "Advanced Genome Science and Technology" courses, students learn the ethics in biology and the connection between science and technology and society.

2. Selecting a Lab and a Supervisor

Each student chooses a lab and a supervisor in April in the Frontier Bio Course. Frontier Bio Course students will make independent decisions regarding their supervisors and the general direction of their research theme. These decisions will be made after taking the "Introduction to Current Biology" course offered right after enrollment and visiting multiple labs in the rotation to participate in actual experiments or discussions with teachers and lab students. Students will be able to make appropriate decisions about supervisors and labs based on their interest and compatibility.

3. Research Guidance by an Advisory Committee Consisting of a Supervisor and Instructors

An advisory committee consisting of a supervisor and at least two professors or associate professors will be assigned to each student once lab research begins. The committee meets approximately once a year to provide continuing guidance to students. Students submit research plans and reports as well as dissertation proposals as they advance each year and receive evaluation and advice in the hearings. This will help students develop the capability to explore and solve problems that are required for an independent researcher and cultivate students' skills in preparing research proposals and reports in a practical way. The committee members will be part of the dissertation defense committee and thus, they will be able to provide long-term and efficient guidance in working on dissertations.

4. Assigning "Class Teachers" and Five-Year Continuous Guidance in a Class

Frontier Bio Course students will be split into two groups of 15 students and will receive five-year continuous guidance and advice from each class teacher. Class teachers provide advice on academic options and students' lives to supplement the research guidance available at a lab.

Curriculum Overview

1. Selective Courses according to Academic History and Achievements and Systematic Bioscience Education based on Small Group Discussion

Students are placed in two different classes based on their academic history and achievements by taking their placement test results into consideration. The two groups take a basic lecture on "Practical Biology for Advanced Science I and II" and a related lab, "Basic Bioscience Seminar I and II." Students focus on understanding basic concepts and an overview of cellular and molecular biology instead of memorizing specific information. Labs are offered for students to build problem-solving skills by collaborating in small groups.

Students receive an overview of their research areas in the Graduate School of Biological Science's "Introduction to Current Biology" course. In the "Practical Bioscience Seminar I and II," students will gain a deeper understanding of the theme they and their labs are working on. The "Frontier

Bioscience Seminar for Research Project" encourages a deeper understanding of individual research themes by training students' abilities to explain their research themes effectively to peers in the Frontier Bio Course and hold discussions among them. Through these exercises, students gain a broad knowledge of bioscience and improve their presentation and communication skills. In the "Social Life Science" and "Advanced Genome Science and Technology" courses, students learn the ethics in biology the connection between science and technology and society.

2. Specialized Education (selective and required) in the First and Second Years

Specialized lectures open between July and December. We provide the "Topics in Animal Science" course, "Frontiers of Plant Sciences" course, and "Advanced Systems Biology" course, in which students learn current research topics of the designated theme in each field. In addition to the "Lecture of Intellectual Property Right" course, in which students learn the rights of intellectual property, we provide the "International Forefront in Bioscience I and II" to enhance their internationality.

Students are required to take at least two courses (three credits) including the "Frontier Bioscience Tutorial" during the two-year period.

3. Five-Year Education for Internationalization and Preparation for a Research Career

Students will take the TOEIC tests immediately after starting Graduate School to learn and verify their English ability. They will take a "Professional English" course that focuses on preparation for the TOEIC tests. Students are placed in different groups according to their English level and receive carefully designed instructions. The course is designed so that students can progress through levels I, II, and III during the two years of the master's program. Students take the TOEIC tests in April every year and January in the second year to see their improvement.

In the first year fall semester and second year spring and fall semesters, students will take English courses that are primarily taught by foreign English teachers including "Communication Strategies," "Logic in Scientific Discovery," and "Communication Quality through Phonology" to reinforce communication skills. During the first year doctoral program, a month-long overseas English training called an "Overseas Internship" is offered to reinforce students' international experience in which students stay at an overseas lab and experience English education on site.

The "Research Project Design" course is offered as part of the doctoral program. In this course, students develop the capability to identify and explore problems that need to be resolved and reinforce their thinking and logical capacity to propose solutions to the problems by organizing their thoughts and giving presentations on solutions for unknown life science issues other than their individual dissertation themes and presenting future projections. The "International Bio-Seminars I-VI" are intensive courses taught by guest teachers invited from partner education and research

institutions overseas. Students will be able to listen to lectures and participate in exercises in English. There will be a summer program in the fourth year (the second year of the doctoral program) in which students will give oral presentation in English. This serves as the "Research Project Presentation" course in which students receive personal guidance from their supervisor and learn techniques for giving presentations in English. There will be an "International Student Workshop" after the summer program. Students from the Graduate School of Biological Sciences and overseas institutions will stay together to discuss their research projects and experience English communications in action. Students with excellent English presentation and communication skills can participate in the "UCD Research Retreat" program held in the United States in the fifth year (the third year of the doctoral program) to improve their skills and build stronger networks with foreign researchers and students.

4. Research Work for the Doctoral Dissertation and Research Guidance by the Advisory Committee

Students submit a report on the progress of their research work and attend a hearing in August of the second year. In February of the second year, students write a thesis for the master course and give a presentation. This is followed by other rounds of progress report submissions and hearings in August of the third year, August of the fourth year in which the advisory committee will give guidance and evaluation. In April of the fifth year, students write a pre-thesis, and give a presentation. In addition, students have a hearing in the fall of the fifth year in which advisory committee makes a final check for the preparation of the thesis defense.

For doctoral dissertations, there will be a preliminary dissertation defense attended by the advisory committee and other Graduate School faculty members. Students who are trying to complete the doctoral program early may take this preliminary defense before the fifth year. Successful degree candidates can take the final defense. The final defense is attended by a dissertation defense committee consisting primarily of advisory committee members.

The Best Student Award and the Yano Award

A few students from both the master's and doctoral programs will be selected for the Best Student Award based on their overall performance in their thesis/dissertation or presentation.

Best Students receive a prize from the Foundation for Nara Institute of Science and Technology at the commencement ceremony and a token from the president at the graduation/completion ceremony.

For the thesis and dissertation defense, most of the professors and associate professors at the Graduate School of Biological Sciences attend the defense to score on presentation and a question and answer session. Total scores, adjusted with the number of reviewers, will be used for the final evaluation. All of the students who are completing the doctoral program will go through the dissertation defense. Students who are completing the master's program may choose to call a thesis defense if they are recommended by their supervisors or wish to make the defense. In either case, students must be completing the program within the standard term of study. Students who are completing in one academic year will be evaluated in the defense regardless of the month they complete it.

Students who are continuing on to the doctoral program will be candidates for the Yano Award. The Yano Award is funded with contributions from the family of Daisuke Yano, who was a third year doctoral student at the Graduate School of Biological Sciences and passed away after a traffic accident on November 4, 2004. At the time of the tragic event, he had published a paper as the first author in the Proceedings of the National Academy of Sciences and was a research fellow of the Japan Society for the Promotion of Science. In his five years in the doctoral program, Mr. Yano had chosen a challenging topic out of his personal interest and advanced research work steadily with persistent and patient efforts. In the hope that our doctoral students embody his spirit and grow as excellent researchers like Mr. Yano, the Yano Award was established to acknowledge a small number of students who have completed the master's program and continue on to the doctoral program with a spirit of challenge and endeavor. The selection will be based on the willingness and creativity of the research work for the master's thesis as well as the doctoral dissertation plans. Professors and associate professors score them at the advisory committee hearings and decide on the recipients of the award.

IV Completion requirements, etc. for the Graduate School of Biological Sciences

Completion Requirements

Master's Course

Students are required to select either the Frontier Bio course or the Bio-Expert course under the guidance offered by the education committee of the school.

Students who select the Bio-Expert course are also required to select either Research Experiment or Research on Biological Subjects, based on consultation with their research instructors.

Completion Requirements (for individuals admitted in academic year 2017)

	G 1:	Number	Frontier Bio course	Bio-Expert course
Subject		of credits offered	Required	Required
	Commentaries on Science and Technology	1	1	1
C	Computer System	1	(**)	(**)
0	Algorithm	1	(**)	(**)
m	Foundation of Materials Science	1	(**)	(**)
m	Science Communication	1	(**)	(**)
О	Philosophy of Science	1	(**)	(**)
n	Technology and Professional Ethics	1	(**)	(**)
	Introduction to Biological Sciences	1	(*)	(*)
	Global Entrepreneur I	1	(*)	(*)
	Global Entrepreneur II	1	(*)	(*)
	Global Entrepreneur III	1	(*)	(*)
	Global Entrepreneur IV	1	(*)	(*)
G	Global Entrepreneur V	1	(*)	(*)
e n	Professional English I	1	1	1
e	Professional English II	1	1	1
r	Professional English III	1	1	1
a	Communication Strategies	1	(*)	
1	Communication Quality through Phonology	1	(*)	
	Logic in Scientific Discovery	1	(*)	
	Social Life Science	1	1	1
	Advanced Genome Science and Technology	1	1	1
	Introduction of Current Biology	1	1	1
	Practical Biology for Advanced Science I \sim II	2	2	2
	Basic Bioscience Seminar I ~II	2	2	2
В	Microbial Biotechnology	1	2	<u>2</u>
a	Environmental Plant Science	1		
S	Biomedical Sciences	1	1	1
i	Bioinformatics	1		
С	Practical Bioscience Seminar I ~II	2	2	2
	Bioexpart Seminar for Research Project	1		1
	Frontier Bioscience Seminar for Research Project	1	1	<u> </u>
—	Advanced Lecture in Developmental Biology	1	1	
	Bio-industrial Technology	1		ш
	Practice in Bio-industrial Technology	1		THE STATE OF THE S
_	Tanias in Animal Caianas	1		
S	Frontiers of Plant Sciences	1	2	THE STATE OF THE S
p	Advanced Systems Biology	1		3 5
e c	Lecture of intellectual property right	1	(F) (F) ::	
i	Topics in Bioinformatics	1	(Except Practice in Bio-industrial	THE STATE OF THE S
a			Technology)	numumum.
1	Bio-Imaging Systems Biology II	1		
	International Forefront in Bioscience I	1		
	International Forefront in Bioscience I	1		<u> </u>
		1	1	
	Frontier Bioscience Tutorial	1	1	— [—

Number	Frontier Bio course	Bio-Expe	ert course	
Subject	Subject of credits offered	Required	Required	
Seminar I ∼IV	8	4	4	4
Research Experiment I ~IV	12	6	6	_
Thesis	2	2	2	_
Rsearch on Biological Subjects I ∼IV	8	_	_	4
Project Report	2	_		2
Total		30	30	30

- : Unable to take subjects depending on the course
- $(\, \boldsymbol{\ast}\,) \,\,$: Not count as credits toward the completion requirements.
- (**): Up to two credits in total earned by taking (i) subjects that are offered by other graduate schools or (ii) common courses marked by an asterisk (**) may be counted as credits earned by taking specialized courses that constitute the completion requirements.

International course of master program

Students from foreign countries and Japanese students who have fluency in English can enroll in this International course after consultation with the education committee of the school.

List of subjects and requirements (For students who enroll in 2017)

Section	Subject	Credit allocated	Credits required for completion
Section	Japanese Class for Beginners I	2	*
	Japanese Class for Beginners II (1)	1	*
	Japanese Class for Beginners II (2)	1	*
Common	Japanese Class for Beginners III (1)	1	*
	Japanese Class for Beginners III (2)	1	*
	Japanese Culture	2	*
	Technology and Professional Ethics	1	1
	Professional English I	1	*
	Professional English II	1	*
	Professional English III	1	*
General	Communication Strategies	1	*
	Communication Quality through Phonology	1	1
	Logic in Scientific Discovery	1	1
	Molecular Cell Biology	1	1
	Advanced Topics in Bioscience	1	1
	Laboratory Rotation I	1	1
Basic	Laboratory Rotation II	1	1
	Literature in Bioscience Research I	1	1
	Literature in Bioscience Research II	1	1
	Research Presentation Forum	1	1
	International Forefront in Bioscience I	1	
	International Forefront in Bioscience II	1	
Crasial	Bioscience Colloquium	1	3
Special	UCD Online Seminar	1	
	**Systems Biology I	1	
	Bioresource Research Proposal	1	*
Seminar I-IV		8	6
Research Ex	periment I-IV	12	9
Γhesis		2	2
	Total credits required for completion		30

^{*} Not counted toward the degree requirement.

^{**} Subjects in Graduate School of Information Science.

Doctoral Course

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

1. Completion requirements for the Doctoral Course

Individuals who wish to complete the Doctoral Course and obtain a doctoral degree are required to earn necessary credits in specified subjects (refer to Graduate School of Biological Sciences curriculum table p40), receive necessary research guidance, submit a doctoral thesis, deliver a presentation before the Screening Committee, and pass the doctoral thesis examination and final examination.

- 2. To submit a doctoral thesis, the following requirements must be met:
- (a) The research is characterized by its originality, novelty, or applicability.
- (b) The thesis has passed a degree application preliminary examination by the Advisory Committee and other faculty members.

3. Conditions for awarding a doctoral degree

A doctoral degree is awarded to individuals who are recognized to be fully capable of continuing research and development as independent researchers or engineers based on the doctoral thesis submitted for the thesis examination.

Double Degree Doctoral Program: Outlines

Graduate School of Biological Sciences

Name of the program

Nara Institute of Science and Technology Graduate School of Biological Sciences and University of Malaya Institute of Graduate Studies Double Degree Doctoral Program

Historical progress and aims of establishing the program

The University of Malaya is one of the most prestigious universities in Malaysia, established in 1905, and comprises approximately 27,000 students and 2,800 faculty to make it the largest university in the country. As the top research university in the country, it has produced leaders in various fields. In 2008, the Graduate School of Biological Sciences at Nara Institute of Science and Technology (NAIST-GSBS) initiated an educational collaboration with the Center for Research in Biotechnology for Agriculture (CEBAR) in University of Malaya and began to deepen and enlighten the mutual understanding of the research programs and philosophy of education. In 2009, both institutions concluded an academic exchange agreement and since then NAIST-GSBS has accepted students every year from the University of Malaya through the Special Recommendation Program. In addition, collaborative research, including the dispatch of students, has also started.

To further develop these academic exchanges, NAIST-GSBS and CEBAR proposed a Double Degree Doctoral Program with the aim of cultivating doctoral students, under dual supervision, into researchers who will become valuable participants in the global scientific community, and the two institutions concluded a memorandum of agreement on this program in 2014. The program also aims to promote international research collaboration between the two institutions.

Overview of the program

Faculty members of NAIST-GSBS and CEBAR will plan collaborative research projects and co-supervise the students who engage in them. The students will maintain student status in their original graduate program while entering the graduate program of the host institution. Faculty from both institutions will become supervisors, and

they are responsible for proposing the thesis topic and giving guidance to students towards completion of the doctoral program. The nominal duration of the doctoral studies consists of a total of 3 years in both institutions. The students' period of study will be divided into two successive periods of 18 months at each institution. The students will be charged fees related to student registration only in one institution. They are also entitled to stay in a dormitory at the host institution. Upon completion of the program, the students will be issued separate doctoral degrees from both institutions.

Selection procedures

Students who wish to enter this program must have a studentship in the graduate school of the home institution and take the screening examination for this program in the host institution. Before taking the examination, students must agree to engage in a collaborative research project between NAIST-GSBS and CEBAR. A recommendation from the supervisor of the home institution is also required.

The evaluation will be based on documentary evidence of the students' aptitude and enthusiasm for the research project, but an interview will be carried out if necessary.

Curriculum and thesis examination

Students who engage in this program should follow the curriculum and fulfill the credit requirements of both institutions. The requirements for NAIST-GSBS are indicated in the Student Handbook on page 48. The graduate program and the equivalent of the doctoral program of the University of Malaya only require thesis research, and credits from taking courses are not necessary.

Upon completion of the requirements of both institutions, a thesis examination will be conducted by means of an inspection of documents and an oral thesis presentation. The examination committee will include supervisors and other specified members of both institutions. The oral thesis presentation can be conducted by an online electronic conferencing system.

Subject registration, etc.

• Registration

1. Preliminary requirements

Students are required to determine course registration plans based on consultation with their research instructors, and to submit registration forms to the Graduate School Office by the specified deadline. Please note that students who select the Bio-Expert course are also required to select either Experimental Research or Thematic Research, based on consultation with their research instructors.

2. 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 Student 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 Student 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 Student Affairs Division.

3. 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 Materials Science. 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 Student 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
Materials Science	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 Materials Science, 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 Materials Science.
- (2) Credit transfer

Up to two credits in total (i) earned by taking subjects at the Graduate Schools of Information Science and/or Materials Science and (ii) earned by taking common subjects 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.

4. 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 and the Department of 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 Student 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 and the Department of Biological Sciences) 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 Student 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 (a seal of approval is required), and submit a registration application form and a statement of reasons to the Academic Affairs Section of the Student Affairs Division.

5. 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.

6. 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 Student Affairs Division at least two months before the month in which such students will start to receive guidance.

• 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 issued in Ikoma City, Nara City and the area including those cities.

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

tows the nameding of classes when the warming 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.

3. Handling of class attendance when students have contracted an infectious disease

A student who has contracted an infectious disease listed under Article 19 of the School Health and Safety Act (Influenza etc.) is not permitted to attend classes until completely cured. There will be make-up classes and examinations given to those students accordingly.

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

April 1, 2004 Regulation No. 21

Article 1 (Purpose)

These regulations stipulate matters necessary for registration by students of the Graduate School of Biological Sciences 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.

80 points or more Excellent 70–79 points Good

60–69 points Fair 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 Biological Sciences 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, 2010.

(Transitional measures)

2. For students who were admitted in academic year 2009 or earlier (hereinafter referred to as "enrolled students"), the former Registration Regulations for the Graduate School of Biological Sciences 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, 2011.

(Transitional measures)

2. For students who were admitted in academic year 2010 or earlier (hereinafter referred to as "enrolled students"), the former Registration Regulations for the Graduate School of Biological Sciences 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, 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 Biological Sciences 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 Biological Sciences 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 Biological Sciences 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, 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 Biological Sciences 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, 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 Biological Sciences 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.

Schedule 1 (supplement to Article 4, Paragraph 1)

Curriculum table of the Graduate School of Biological Sciences

(1) Sul	oject name, etc.								(Master's Course)
		Subject	Number	Frontier	Bio course	Bio-Ex	pert course	;	
Section	Subjects name	Numbe r	of credits	Required/ elective	Number of credits required for completion	Required/ elective		of credits completion	Registration method, etc
	Commentaries on Science and Technology	000201	1	0	1	0		l	Common Subjects for All Graduate Schools
	Computer System	000101	1	0		0			Common Subjects for All Graduate Schools
ıse	Algorithm	000102	1	0		0			Common Subjects for All Graduate
Common Course	Foundation of Materials Science	000301	1	0		0			Schools Common Subjects for All Graduate
non (Science Communication	000203	1	0	(*)	0	(,	k)	Schools Common Subjects for All Graduate
nmc									Schools Common Subjects for All Graduate
ŭ	Philosophy of Science	000103	1	0		0			Schools Common Subjects for All Graduate
	Technology and Professional Ethics	000104	1	0		0			Schools Common Subjects for All Graduate
	Introduction to Biological Sciences	000202	1	Δ		Δ			Schools
	Global Entrepreneur I	111011	1	Δ		Δ			Subject in Information Science
	Global Entrepreneur II	111012	1	Δ		Δ			Subject in Information Science
	Global Entrepreneur III	112013	1	Δ		\triangle			Subject in Information Science
	Global Entrepreneur IV	112014	1	Δ		\triangle			Subject in Information Science
o o	Global Entrepreneur V	112015	1	Δ		Δ			Subject in Information Science
ours	Professional English I	210001	1	0		0			'
) Te	Professional English II	210002	1	0		0			
General Course	Professional English III	210002	1	0		0			
Ğ	Communication Strategies	210003	1	Δ		9			
	Communication Quality through Phonology	210004	1	Δ	5		:	5	
	Logic in Scientific Discovery	210003	1	Δ					
	Social Life Science	210000	1						
				0		0			
	Advanced Genome Science and Technology Introduction of Current Biology	210008 220001	1	0		<u> </u>			
	Practical Biology for Advanced ScienceI	220001	1	0		0			
	Practical Biology for Advanced ScienceII	220003	1	0		0			
	Basic Bioscience Seminar I	220003	1	0		0			
-	Basic Bioscience Seminar II	220005	1	0		0			
Basic Course	Microbial Biotechnology	220006	1						
ပိ	Environmental Plant Science	220007	1		9		Ģ	7	
Basic	Biomedical Sciences	220008	1						
ш	Bioinformatics	220009	1						
	Practical Bioscience Seminar I	220010	1	0		0			
	Practical Bioscience Seminar II	220011	1	0		0			
	Bioexpart Seminar for Research Project	220012	1			0			
	Frontier Bioscience Seminar for Research Project	220013	1	0					m: n
	Advanced Lecture in Developmental Biology	230001 230002	1 1	0		0			(Bio-Expert course) Students who select a combination
	Bio-industrial Technology Practice in Bio-industrial Technology	230002	1	Δ		0			of Research Experiment and Thesi
	Topics in Animal Science	230003	1	0		0			are required to earn three credits of more.
e e	Frontiers of Plant Sciences	230004	1			0			Students who select a combination of Research on Biological Subjects
Course	Advanced Systems Biology	230006	1	0		0			and Project Report are required to
og C	Lecture of intellectual property right	230007	1	Ö	3	0	5	3	earn an additional two credits or more (five credits or more in total)
alize	Topics in Bioinformatics	230008	1	Ö	3	Ö	3	3	
Specialized	Bio-Imaging	130037	1	0		0			Subject in Information Science (Bio-Imaging, Systems Biology II)
S	Systems Biology II	130039	1	0		0			
	International Forefront in Bioscience I	230009	1	0					
	International Forefront in Bioscience II	230010	1	0					
	Frontier Bioscience Tutorial	230011	1	0					
Semina		240001	2						
Semina		240001	2						
					4		4	4	
Semina		240003	2						
Semina	r IV	240004	2						
Resear	ch Experiment I	240005	3						
Resear	ch Experiment II	240006	3		6			6	(Bio-Expert course)
Resear	ch Experiment III	240007	3		6			O	Students who select
Resear	ch Experiment IV	240008	3						Research Experiments
Thesis		250001	2	0	2			2	are also required to take Thesis.
	n on Biological Subjects I	240009	2		2				
	ch on Biological Subjects II	240010	2				4		(Bio-Expert course)
Researe	ch on Biological Subjects III	240011	2						Students who select Research on Biological
Resear	ch on Biological Subjects IV	240012	2						Subjects are also
Project	Report	250002	2	<u> </u>			2		required to take Project
	Number of credits required for comp	letion			30	_	30	30	
1. In the	"Required/elective" column, ⊚, □, and ○ represent required s		quired elec	tive subjects,	and elective subje	cts, respectively.			ı

^{1.} In the "Required/elective" column, \odot , \Box , and \bigcirc represent required subjects, required elective subjects, and elective subjects, respectively.

2. In the "Required/elective" column, subjects marked \triangle do not count as credits toward the completion requirements.

(2) Registration procedures

- A. Students are required to select either the Frontier Bio course or the Bio-Expert course under the guidance offered by the education committee of the school
- B. Students who select the Bio-Expert course are also required to select either Research Experiment or Research on Biological Subjects, based on consultation with their research instructors.
- C. In accordance with Article 37 of the NAIST Regulations, up to two credits in total earned by taking (i) subjects that are offered by other graduate schools or (ii) common courses marked by an asterisk (*) may be counted as credits earned by taking specialized courses that constitute the completion requirements.

(3) 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 subjects:

X0XXXX = Common subjects[For master's course]

X1XXXX = General subjects[For master's course]

X2XXXX = Basic subjects[For master's course] X3XXXX = Specialized subjects[For master's course]

X4XXXX = Advanced topics (Laboratory Activities) / Seminar[For master's course]

X5XXXX = Thesis / Specialized research / Research [For master's course]

X6XXXX = Doctoral subjects (Except below doctoral subject) [For doctoral course]

X7XXXX = Dissertation / Research[For doctoral course]

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

XX0XXX = No category

XX1XXX = Basic

XX2XXX = Intermediate

XX3XXX = Advanced

Fourth digit: The fourth digit in the 6-digit numbers indicates subjects for international course:

 $XXX\mathbf{0}XX = No \text{ category}$

XXX3XX = Subjects for international program for master's course

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers based on levels of subjects categorized by second digit:

XXXXXX = 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:

XXX1XX = Subjects offered by the Graduate School of Information Science

 $XXX{\color{red}2}XX = Subjects \ of fered \ by \ the \ Graduate \ School \ of \ Biological \ Sciences$

XXX3XX = 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 3", please refer to other Graduate Schools guideline

Schedule 2 (supplement to Article 4, Paragraph 1)

Educational Curriculum for Graduate School of Biological Sciences

(1)List of subjects and requirements

(1)List of	f subjects and requirements	T		1	Internation	al program for master's course
Section	Subject	Subject Number	Credit	Classification (*)	Credits required for completion	Comment
	Japanese Class for Beginners I	000303	2	Δ		Common Subjects for All Graduate Schools
	Japanese Class for Beginners II (1)	000204	1	\triangle		Common Subjects for All Graduate Schools
	Japanese Class for Beginners II (2)	000205	1	\triangle		Common Subjects for All Graduate Schools
Common	Japanese Class for Beginners III (1)	000206	1	\triangle		Common Subjects for All Graduate Schools
	Japanese Class for Beginners III (2)	000207	1	\triangle		Common Subjects for All Graduate Schools
	Japanese Culture	000105	2	\triangle		Common Subjects for All Graduate Schools
	Technology and Professional Ethics	000104	1	0	1	Common Subjects for All Graduate Schools
	Professional English I	210301	1	\triangle		
	Professional English II	210302	1	\triangle		
C 1	Professional English III	210303	1	\triangle		
General	Communication Strategies	210304	1	\triangle		
	Communication Quality through Phonology	210305	1	0		
	Logic in Scientific Discovery	210306	1	©	2	
	Molecular Cell Biology	220301	1	0		
	Advanced Topics in Bioscience	220302	1	©		
Basic	Laboratory Rotation I	220303	1	©		
	Laboratory Rotation II	220304	1	©	7	
	Literature in Bioscience Research I	220305	1	©		
	Literature in Bioscience Research II	220306	1	©		
	Research Presentation Forum	220307	1	©		
	International Forefront in Bioscience I	230301	1			
	International Forefront in Bioscience II	230302	1			
~	Bioscience Colloquium	230303	1		3	
Special	UCD Online Seminar	230304	1			
	Systems Biology I	130038	1			Subject in Information Science
	Bioresource Research Proposal	230305	1	\triangle		,
Seminar I	•	240301	2			
Seminar II		240302	2			
Seminar II	I	240303	2		6	
Seminar IV	/	240304	2		i 	
	Experiment I	240305	3			
	Experiment II	240306	3		_	
	Experiment III	240307	3		9	
	Experiment IV	240308	3			
Γhesis		250301	2	<u> </u>	2	
	Total credits required fo	1		<u>. </u>	30	
-t- C - 5	ols indicate: ©, compulsory; \square , elective			1: 0.1:	<u> </u>	

Symbols indicate: \bigcirc , compulsory; \square , elective-compulsory; \triangle , credits of this subject are not counted as those required for completion

(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 subjects:

X0XXXX = Common subjects [For master's course]

X1XXXX = General subjects [For master's course]

X2XXXX = Basic subjects [For master's course]

X3XXXX = Specialized subjects [For master's course]

X4XXXX = Advanced topics (Laboratory Activities) / Seminar[For master's course]

X5XXXX = Thesis / Specialized research / Research [For master's course]

X6XXXX = Doctoral subjects (Except below doctoral subject) [For doctoral course]

X7XXXX = Dissertation / Research[For doctoral course]

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

XX0XXX = No category

XX1XXX = Basic

XX2XXX = Intermediate

XX3XXX = Advanced

Fourth digit: The fourth digit in the 6-digit numbers indicates subjects for international course:

XXX0XX = No category

XXX3XX = Subjects for international program for master's course

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers based on levels of subjects categorized by second digit:

XXXXXX = 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:

XXX1XX = Subjects offered by the Graduate School of Information Science

XXX2XX = Subjects offered by the Graduate School of Biological Sciences

XXX3XX = 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 3", please refer to other Graduate Schools guideline

Schedule 3 (supplement to Article 4, Paragraph 2)

Curriculum table of the Graduate School of Biological Sciences

Subject name, etc. (Doctoral Course)

j					(Bostorar course)
Subject name	Subject Number	Number of credits	Required/elective	Number of credits required for completion	Registration method, etc.
Research Project Design	260001	1	0	1	
Overseas Internship I	260002	3	Δ		
Overseas Internship II	260003	3	\triangle		
International Bio-Seminar I	260004	1	0		
International Bio-Seminar II	260005	1	0		
International Bio-Seminar III	260006	1	0		Students are required to
International Bio-Seminar IV	260007	1	0		Students are required to take at least one subject of
International Bio-Seminar V	260008	1	0	3	International Bio Seminar
International Bio-Seminar VI	260009	1	0		I to VI in the first
Research Project Presentation	260010	1	0		academic year.
International Student Workshop	260011	1	0		
UCD Research Retreat	260012	1	0		
Communication Strategies	260013	1	Δ		
Communication Quality through Phonology	260014	1	\triangle		These courses cannot be
Professional English I	260015	1	\triangle		taken in cases where they
Professional English II	260016	1	\triangle		have already been taken at
Professional English III	260017	1	\triangle		Frontier Bio Master Course level.
Responsible Conduct of Research	260018	1	\triangle		Course level.
UCD Online Seminar	260019	1	\triangle		
Research Experiment I	270001	6			
Research Experiment II	270002	6		6	
Research Experiment III	270003	6			
Number of credits requir	10				

^{1.} In the "Required/elective" column, \bigcirc , \square and \bigcirc represent required, required elective and elective subjects, respectively.

^{2.} Subjects marked \triangle in the "Required/elective" column do not count as credits toward the completion requirements.

^{*} This curriculum is also used for double degree program students.

(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 subjects:

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

X1XXXX = General subjects [For master's course]

X2XXXX = Basic subjects [For master's course]

X3XXXX = Specialized subjects [For master's course]

X4XXXX = Advanced topics (Laboratory Activities) / Seminar[For master's course]

X5XXXX = Thesis / Specialized research / Research [For master's course]

X6XXXX = Doctoral subjects (Except below doctoral subject) [For doctoral course]

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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 3", please refer to other Graduate Schools guideline

V Criteria for Thesis/Dissertation Defense, etc.

Criteria for Thesis/Dissertation Defense

Master's Program

Students give oral presentations and are questioned on the content of their master's thesis. Students in the Bio-Expert Course must submit a Research Thesis or Theme Thesis. Students in the Frontier Bio Course must write and submit a research Dissertation. The criteria are as follows.

- > Does the student have adequate understanding of the purpose of the research?
- > Did the student organize and explain the background, significance, and knowledge of the research theme?

The introduction of the thesis or presentation should include a brief but concise description of the basic knowledge that is useful for understanding the research, an explanation of related research work, their reason for choosing the topic, or the expected significance once the theme is achieved.

> Did the student understand and examine the research plan and method?

The purpose of the research should be briefly mentioned in the introduction by providing an overview of the research. Referenced literature must be listed in detail on the research method and material so that they are obtainable.

> Did the student fully organize and analyze experimental data and research results?

The purpose and methods of the research for each item should be provided briefly so that the paper is not just a list of data. The title of each item should be structured so that it reflects the content. Figures and tables should be given clear and sufficient explanation.

> Did the student develop a hypothesis and conclusion based on the results?

The purpose of the research should be verified briefly against the actual achievements according to the points mentioned in the introduction. The potential for a new hypothesis and interpretation, or the novelty and importance of the conclusion should be featured. Whether further research is required or the direction that it is going should be examined as well.

- > Did the student cite literature properly?
- > Did the student structure his/her paper or oral presentation in a logical and easy-to-understand way?

Doctoral Program

Students give an oral presentation and are questioned on the content of the doctoral dissertation. The submission of a Defense Request and the ensuing procedure are detailed in the requirements for completing the doctoral program. The criteria are as follow.

- > Is the purpose of the research rational and unique?
- > Is the student's knowledge of the background and significance of the research topic sufficient as an expert?

The introduction of the thesis or presentation should include a brief but concise description of the basic knowledge that is useful for understanding the research, an explanation about related research work, the reason for choosing the topic, or the expected significance once the theme is achieved.

> Did the student examine and describe the research plan and method?

The purpose of the research should be mentioned in the introduction briefly by showing an overview of the research. Referenced literature must be listed in detail on the research method and material so that they are obtainable.

> Did the student fully organize and analyze experimental data and research results?

The purpose and methods of the research for each item should be provided briefly so that the paper is not just a list of data. The title of each item should be structured so that it reflects the content. Figures and tables should be given clear and sufficient explanation.

- > Did the student develop a hypothesis and conclusion based on the results?
- > Would the result of the research contribute academically and in actual application?

The purpose of the research should be verified briefly against the actual achievement according to the points mentioned in the introduction. The potential for a new hypothesis and interpretation, or the novelty and importance of the conclusion should be featured. Whether further research is required or the direction that it is going should be examined as well.

- > Did the student cite literature properly?
- > Did the student structure his/her paper or oral presentation in a logical and easy-to-understand way?

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)

- 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)

- 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

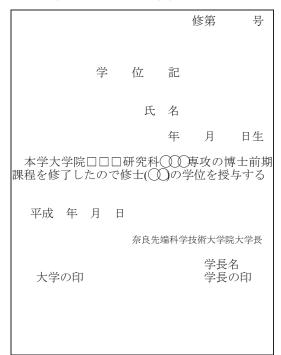
These Regulations shall come into effect on April 1, 2004.

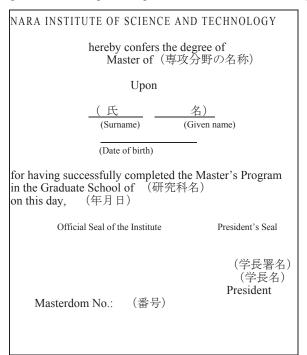
Supplementary provisions

(Effective date)

- 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)

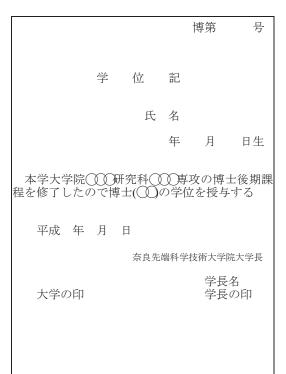




(Note 1) The sheet is A4-sized.

(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)

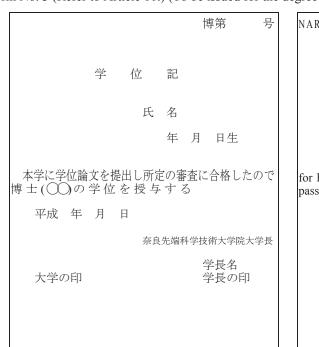


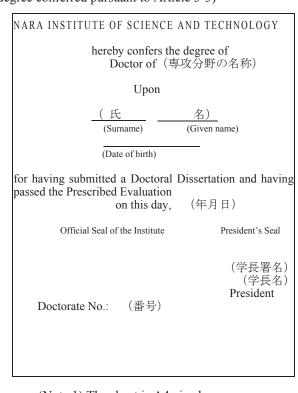
NARA INSTITUTE OF SCIENCE AND TECHNOLOGY hereby confers the degree of Doctor of(専攻分野の名称) Upon 名) (Surname) (Given name) (Date of birth) for having successfully completed the Doctoral Program in the Graduate School of (研究科名) (年月日) on this day, Official Seal of the Institute President's Seal (学長署名) (学長名) President Doctorate No.: (番号)

(Note 1) The sheet is A4-sized.

(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)





(Note 1) The sheet is A4-sized.

(Note 1) The sheet is A4-sized.

Schedule from thesis submission to thesis examination

Degrees will be awarded on a quarterly basis (in late March, June, September, or December). Students are required to pass the Doctoral Thesis Preliminary Review before the Doctoral Thesis Defense. Guideline and schedule on the Doctoral Thesis Preliminary Review are notified separately. Student can try to request the Doctoral Thesis Preliminary Review time after time until students pass it.

The table below shows an approximate schedule, as an example, from thesis submission and examination to awarding of a degree. In the example here is for a degree to be awarded in March.

Number	Procedure	For a degree awarded in March
1	Students submit to NAIST "a Doctoral thesis defense request", "a Curriculum vitae", "a List of publications", "a Thesis copyright form", "two copies of Doctoral thesis abstract" and "a Doctoral thesis(in PDF format).	At least seven days before a meeting of the Faculty Council of the graduate school in January(or February)
2	The Screening Committee members are selected. The Screening Committee consists of more than 3 faculty members.	A meeting of the Faculty Council of the graduate school in January(or February)
3	The public hearing of Doctoral Thesis Preliminary Review is held in which all professors and associate professors participate. After the public hearing, all professors and associate professors exchange opinions about Doctoral Thesis Preliminary Review and make a decision (pass/fail).	In February
4	The Screening Committee members conduct a thesis examination and a final examination.	At least two days before a meeting of the Faculty Council of the graduate school in March
5	The Screening Committee members report the examination results. Decisions (pass/fail) are made based on the examination results.	A meeting of the Faculty Council of the graduate school in March
6	Degrees are awarded to students who pass the examination; such students are deemed to have completed the Doctoral course.	Late March

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	Numbe r of credits	Lecturer	Class period	Total number of classes	Remarks
	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
C o	Algorithm	000102	1	Inoue etc.	Spring semester	15	Common subujects for all graduate schools
m	Foundation of Materials Science	000301	1	Katsuki,Aratani	Spring semester	15	Common subujects for all graduate schools
m	Science Communication	000203	1	Bessho etc.	Autumn semester	15	Common subujects for all graduate schools
0	Philosophy of Science	000103	1	(Nakao)	Spring semester	15	Common subujects for all graduate schools
n	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
	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
G	Global Entrepreneur V	112015	1	Faculty members in charge	Intensiv lectures	25	Subject in Information Science
e	Professional English I	210001	1	McAleese	Spring semester in first	15	
n e	Professional English II	210002	1	McAleese	academic year Autumn semester in first	15	
r	Professional English III	210003	1	McAleese	academic year Autumn semester in second	15	
a	Communication Strategies	210003	1	McAleese	academic year Autumn semester	15	
1	Communication Strategies Communication Quality through Phonology	210004	1	McAleese	Spring semester	15	
	, , ,	210003	1		Autumn semester	15	
	Logic in Scientific Discovery Social Life Science	210007	1	Inagaki Bessho		15	
					First academic year	<u> </u>	
	Advanced Genome Science and Technology	210008	1	Bessho	First academic year Spring semester in first	15	
	Introduction of Current Biology	220001	1	Hashimoto etc.	academic year Spring semester in first	24	
	Practical Biology for Advanced ScienceI	220002	1	Akiyama etc.	academic year Spring semester in first	15	
	Practical Biology for Advanced ScienceII	220003	1	Kimata etc.	academic year Spring semester in first	15	
	Basic Bioscience Seminar I	220004	1	Demura etc.	academic year Spring semester in first	15	
В	Basic Bioscience Seminar II	220005	1	Komai etc.	academic year Spring semester in first	15	
a	Microbial Biotechnology	220006	1	Takagi etc.	academic year Spring semester in first	15	
s i	Environmental Plant Science	220007	1	Nakajima etc.	academic year Spring semester in first	15	
c	Biomedical Sciences	220008	1	Kato etc.	academic year Spring semester in first	15	
	Bioinformatics	220009	1	Bessho etc.	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	
	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
C	Topics in Animal Science	230004	1	Isotani etc.	First and Second academic year	15	
S p	Frontiers of Plant Sciences	230005	1	Itoh etc.	First and Second academic year	15	
e	Advanced Systems Biology	230006	1	Inagaki etc.	First and Second academic year	15	
с	Lecture of intellectual property right	230007	1	Kubo	Autumn semester	15	
i	Topics in Bioinformatics	230008	1	Bessho	Autumn semester	15	
a 1	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	Numbe r of credits	Lecturer	Class period	Total number of classes	Remarks
Semir	nar I	240001	2	Faculty members of assigned laboratory	Spring semester in first academic year	60	
Semir	nar II	240002	2	Faculty members of assigned laboratory	Autumn semester in first academic year	60	
Semir	nar III	240003	2	Faculty members of assigned laboratory	Spring semester in second academic year	60	
Semir	nar IV	240004	2	Faculty members of assigned laboratory	Autumn semester in second academic year	60	
Resea	rch Experiment I	240005	3	Faculty members of assigned laboratory	Spring semester in first academic year	90	
Resea	rch Experiment II	240006	3	Faculty members of assigned laboratory	Autumn semester in first academic year	90	
Resea	rch Experiment III	240007	3	Faculty members of assigned laboratory	Spring semester in second academic year	90	
Resea	rch Experiment IV	240008	3	Faculty members of assigned laboratory	Autumn semester in second academic year	90	
Thesis	S	250001	2	Faculty members of assigned laboratory	First and Second academic year		
Rsear	ch on Biological Subjects I	240009	2	Faculty members of assigned laboratory	Spring semester in first academic year	60	
Resea	rch on Biological Subjects II	240010	2	Faculty members of assigned laboratory	Autumn semester in first academic year	60	
Resea	rch on Biological Subjects III	240011	2	Faculty members of assigned laboratory	Spring semester in second academic year	60	
Resea	rch on Biological Subjects IV	240012	2	Faculty members of assigned laboratory	Autumn semester in second academic year	60	
Projec	et 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

C Japanese Class for Beginners II (1) 000204 1 (Nakao) Autumn semester in first academic year 15 Common unbacted in first academic year 15 International Forefront in Bioscience Research II 220305 1 International Forefront in Bioscience I 230301 International Forefront in Bioscience I 230301 International Forefront in Bioscience I 220307 International Forefront in Bioscience I 220307 International Forefront in Bioscience I 230301 International Forefront in Bioscience	ijects for all graduate schools opjects for all graduate schools gjects for all graduate schools opjects for all graduate schools opjects for all graduate schools to twice in this academic year opjects for all graduate schools class in this academic year opjects for all graduate schools class in this academic year opjects for all graduate schools
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Professional English I 210301 1 McAleese Spring semester in first academic year 15 Communication Quality through Phonology 210305 1 McAleese Autumn semester in second academic year 15 Communication Quality through Phonology 210305 1 McAleese Autumn semester in first academic year 15 Communication Quality through Phonology 210305 1 McAleese Autumn semester 15 15 15 16 16 16 16 16	class in this academic year sujects for all graduate schools
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e Bioscience Colloquium 230303 1 Demura etc. First and Second academic year 15	
C UCD Online Seminar 230304 1 Nakajima etc. First and Second academic year 15	
a Systems Biology I 130038 1 Kanaya etc. Spring semester 15 Subject in	Information Science
1 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

Doctoral course						
Subject	Subject Number	Numbe r 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 ExperimentIII	270003	6	Advisory committee	Third academic year	180	

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:

XOXXXX = Common subjects [For master's course]

X1XXXX = General subjects [For master's course]

X2XXXX = Basic subjects [For master's course]

X3XXXX = Specialized subjects [For master's course]

X4XXXX = Advanced topics (Laboratory Activities) / Seminar

[For master's course]

X5XXXX = Thesis / Specialized research / Research [For master' s course]

X6XXXX = Doctoral subjects (Except below doctoral subject)

[For doctoral course]

X7XXXX = Dissertation / Research [For doctoral course]

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

XX0XXX = No category

XX1XXX = Basic

XX2XXX = Intermediate

XX3XXX = Advanced

Fourth digit: The fourth digit in the 6-digit numbers indicates subjects for international course:

XXX0XX = No category

XXX3XX = Subjects for international program for master's course

Fifth and Sixth digits: The fifth and sixth digits in the 6-digit numbers indicate serial numbers based on levels of subjects categorized by second digit:

XXXXXX = 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:

XXX1XX = Subjects offered by the Graduate School of Information Science

XXX2XX = Subjects offered by the Graduate School of Biological Sciences

XXX3XX = 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.

W Syllabus, etc.

Online Syllabus

Syllabi are available from the Graduate School of Biological Sciences Webpage. They can be viewed, printed and downloaded by accessing the following:

https://bs-education.naist.jp/bio_syllabus/

XYou can see the details of the lecture schedule on online syllabus.

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.

OInformation 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.

- 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 ab	road*	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 departur

English education - International education

English proficiency is an essential skill for scientists and engineers. In this context, English proficiency refers to skills such as reading, understanding and writing English theses, delivering presentations, and taking part in discussions with foreign participants at international conferences. Continual learning is required to improve English proficiency, and so the following programs are provided to help students achieve this objective.

(1) Bio-Expert course

Professional English I, II, III

Compulsory courses focusing on improving TOEIC scores. Each course is tailored to student needs and proficiencies with level-specific classes. The three courses are structured in a way that students continue to improve their abilities over the 2 year Master's Course.

(2) Frontier Bio course

Professional English I, II, III

Compulsory courses focusing on improving TOEIC scores. Each course is tailored to student needs and proficiencies with level-specific classes. The three courses are structured in a way that students continue to improve their abilities over the 2 year Master's Course.

Global Communication Strategies

An elective course focusing on English listening and speaking.

Communication Quality through Phonology

An elective course focusing on English pronunciation, stress, and rhythm.

Logic in Scientific Discovery

An elective small-group course focusing on logical thinking through reading and discussing English research papers.

International Forefront in Bioscience I, II

Intensive lectures and seminars held in English by researchers invited from universities abroad.

(3) International course

Communication Quality through Phonology

A compulsory course focusing on English pronunciation, stress, and rhythm.

Logic in Scientific Discovery

A compulsory small-group course focusing on logical thinking through reading and discussing English research papers.

Professional English I, II, III

Elective courses focusing on improving TOEIC scores. Each course is tailored to student needs and proficiencies with level-specific classes. The three courses are structured in a way that students continue to improve their abilities over the 2 year Master's Course.

Global Communication Strategies

An elective course focusing on English listening and speaking.

International Forefront in Bioscience I, II

Intensive lectures and seminars held in English by researchers invited from universities abroad.

(4) Doctoral Course

By attending lectures etc. held in English by researchers invited from universities abroad, students are expected to further increase their knowledge on specified specialized topics and cutting-edge research. These classes also have the aim of increasing student communicative proficiency in English and cultural/international awareness.

International Bio Seminars I–VI (in each academic year of the Doctoral Course)

Intensive lectures and seminars in English held by researchers invited from overseas universities, etc.

Research Project Presentation (in the second year of the Doctoral Course)

Individual practice and training in research presentation techniques with a view to doing English oral presentations at the Summer Camp in the second year of the Doctoral Course.

International Student Workshop (in the second year of the Doctoral Course)

Students spend time with other graduate school students invited from overseas universities, etc. at a seminar facility outside NAIST. They are expected to gain further experience in communicating using scientific English by presenting and discussing their research. Students also have the opportunity to build networks with other international researchers.

US Laboratory Internship (in the first year of the Doctoral Course)

Students take part in a four-week program in the University of California Davis, USA or Languages International, NZ. While focusing on improving their practical English communication skills, students also take part in a mini-research project at a host laboratory.

Elective English courses (held each year)

Global Communication Strategies

Communication Quality through Phonology

Professional English I, II, III

(5) Requirements for all students

Web-based self-study English learning system

All students have access to a web-based self-study system to learn English. Although this is not a compulsory course, it is highly recommended that students use this system to continue improving their English whenever possible.

Periodic TOEIC IP tests to evaluate English ability

All students are required to take TOEIC IP tests. In the Master's and Doctoral Courses, students take TOEIC tests immediately after admission, and every year thereafter.

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

Cat	mot of subjects and	100	-	<i>y</i> 11101110	Num	in charge for the graduate school of imprimation	Number of classes p		a non	,	-	2011	
Cat egor	Subject	Do ma in	Ty pe	Subject Number	ber of	Faculty member in charge	I	we II		IV	Total numbe r of	Englis h subject	Remarks
V	Computer System		L	000101	credi 1	Yasuhiko Nakashima, Keiichi Yasumoto, Yutaka Arakawa, Manato Fujimoto	4	11	4	īv	classes		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	П	L	000202	1	Hisaji Maki	5	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		
cts	Introduction to Formal Language Theory		L	120002	1	Minoru Ito	2				15		
ıbje	Introductory Programming Course I		Р	120003	1	Takashi Ishio, Akinori Ihara	4				30		
S.	Introductory Programming Course II		Р	120004	1	Kenichi Matsumoto, Hideaki Hata		4			30		
Basic Subjects	Principles of Signal Processing		L	120005	1	Hirokazu Kato, Takafumi Taketomi	2				15		
Н	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		
	Theory of Computation I	С	L	130001	1	Minoru Ito		2			15		
	Theory of Computation II	С	L	130002	1	Michiko Inoue, Fukuhito Ooshita		2			15	0	
	Fandamental of High Performance Computiong	С	L	130003	1	Yasuhiko Nakashima, Takashi Nakada		2			15		
	Advanced Algorithm Design	С	L	130004	1	Fukuhito Ooshita, Michiko Inoue		2			15		
	Distributed Systems and Middleware	С	L	130005	1	Keiichi Yasumoto	2				15	0	
	Software Design	С	L	130006	1	Hajimu Iida, (Norihiro Yoshida), Eunjong Choi	Inter				15		
	System Requirement Engineering	С	L	130007	1	(Toshinori Takai), (Yasushi Tanaka), (Masafumi Katahira), (Naoki Ishihama), (Shinji Kawaguchi)	Inter				15		
	Virtual Systems Infrastracture	С	L	130008	1	Kohei Ichikawa, Yasuhiro Watashiba				2	15	0	
	Software Engineering I	С	L	131009	1	Kenichi Matumoto, Akinori Ihara	2				15		
	Software Engineering II	С	L	132010	1	Takashi Ishio, Hideaki Hata			2		15		
	Speech Processing	М	L	130011	1	Satoshi Nakamura, Koichiro Yoshino, (Shinnosuke Takamichi), Sakti Sakriani Watiasri			2		15		
	Artificial Intelligence	М	L	130012	1	Masashi Shimbo, Hiroshi Noji	2				15	0	
ooi	Ambient Intelligence	Μ	L	130013	1	(Norihiro Hagita), Masayuki Kanbara			2		15	0	
n Science	Natural Language Processing	М	L	130014	1	Yuji Matsumoto, (Hideki Kashioka), Hiroyuki Shindo			2		15		
tion	Computer Vision I	Μ	L	131015	1	Tomokazu Sato			2		15	0	
rma	Computer Vision II	Μ	L	132016	1	Yasuhiro Mukaigawa			2		15		
Info	Computer Graphics	Μ	L	130017	1	Takuya Funatomi	2				15	0	
in	Virtual Reality	Μ	L	130018	1	Kiyoshi Kiyokawa				2	15		
ects	Digital Image Processing	Μ	L	130019	1	Norihiko Kawai		2			15		
ubj	Coding Theory	С	L	130020	1	(Yuichi Kaji)				2	15	0	
S pe	Information Network I	С	L	131021	2	Youki Kadobayashi, Doudou Fall	4				30	0	
Specialized Subjects in Informa	Information Network II	С	L	132022	2	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, (Atsuo Inomata)			4		30		
$^{\mathrm{Sp}}$	Wireless Communication Systems	М	L	130023	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang		2			15		
	Signal Detection Theory	М	L	130024	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			2		15	0	
	Network Simulation	М	L	130025	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			2		15		
	Sequential Data Modeling	М	Н	130026	1	(Katsuhito Sudoh), Koichiro Yoshino, Sakti Sakriani Watiasri		2			15	0	
	Human Computer Interaction	M	Н	130027	1	Christian Sandor, Alexander Plopski		- 0	_	2	15	0	
	Pattern Recognition	M	Н	130028	1	Takuya Funatomi, Masayuki Kanbara		2	_		15		
	Game Theory Machine Lerning and Intelligent Control	A	L	130029 131030	1	Masahiro Sasabe		2	\vdash	\vdash	15 15	_	
	Model-base Control	A	$_{ m L}$	131030	1	Takamitsu Matsubara Kenji Sugimoto			2	\vdash	15	0	
	Robotics I	A	Н	131032	1	Tsukasa Ogasawara, Jun Takamatsu	2		É		15		
			П			Tsukasa Ogasawara, Jun Takamatsu,	<u> </u>						
	Robotics II	A	Н	132033 130034	1	(Yoshio Matsumoto), (Mitsunori Tada) Kazushi Ikeda, Hiroaki Sasahi		2	2		15 15	0	
	Mathematical Modeling			100004		mazusiii Ikeua, fiifuaki dasafii		- 4			CT.		

	Computational Neuroscience	Α	L	130035	1	Junichiro Yoshimoto, Tomoya Tamei, (Jun Morimoto), (Kenji Doya)			2		15	0	
	Ubiquitous Information Processing	С	L	130036	1	Yutaka Arakawa	2				15		
	Bio-Imaging	Α	L	130037	1	(Tadao Sugiura), (Hidehiro Iida), (Tsutomu Zeniya)			2		15		
	Systems Biology I	Α	L	130038	1	Shigehiko Kanaya, Md.Altaf-Ul-Amin	2				15	0	
	Systems Biology II	Α	L	130039	1	Shigehiko Kanaya, Md.Altaf-Ul-Amin			2		15		
	Biomedical Image Analysis	Α	L	130040	1	Yoshinobu Sato				2	15	0	
	Biomedical Media Informatics	Α	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	С	L	130043	2	(Jun Murai), Youki Kadobayashi			2	2	30	0	
	Data Mining	Α	L	130044	1	Md.Altaf-Ul-Amin			2	ĺ	15		
	Mobile Computing	С	L	130045	1	Naoki Shibata		2			15	0	
	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	0	10 classes will be offered. (1 credit for 2 classes)
	Advanced Cutting-edge Research Seminar II	G	L	130047	1	=		-	_		15	0	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	0	10 classes will be offered. (1 credit for 2 classes)
e Ge	Advanced Cutting-edge Research Seminar IV	G	L	130049	1	_		-	_		15	0	N/A in this academic year
Specialized Subjects in Information Science	Project Practice I	G	Ш	130050	2	Faculty members in charge of respective themes and non-NAIST instructors	Differe	nt for re	spective	themes	60		A few classes will be offered.
ion	Project Practice II	G	Р	130051	2	_		_			60		N/A in this academic year
ormat	Project Practice III	G	Р	130052	2	Faculty members in charge of respective themes and non-NAIST instructors	Different for respective themes			60		A few classes will be offered.	
Inf	Project Practice IV	G	Р	130053	2	_		-	-		60		N/A in this academic year
ects in	Exercise in Practical Software Development I	G	Р	130054	2	Hajimu Iida, Yasuhiro Watashiba, Eunjong Choi, Futoshi Yokota			2		30		
ubje	Exercise in Practical Software Development II	G	Р	130055	2	_		-	_		30		N/A in this academic year
S p	Theory of Advanced IT	G	L	130056	1	_	_				15		N/A in this academic year
ize	Studio of Advanced IT I	G	Р	130057	2	Jun Takamatsu, (Yasushi Tanaka), (Toshinori Takai)	Differe	nt for re	spective	themes	30		
cia	Studio of Advanced IT II	G	Р	130058	2	Jun Takamatsu, (Yasushi Tanaka), (Toshinori Takai)	Differe	Different for respective themes		30			
Spe	Introduction to Advanced Robot Technology	Α	L	130059	1	_		_	_		15		N/A in this academic year
	Advanced Robot Design	Α	Р	130060	2	Jun Takamatsu, Masayuki Kanbara, Takamitsu Matsubara, Ming Ding	Intensive lectures			60			
	Advanced Robot Development Theory I	Α	Р	131061	1	Jun Takamatsu, Ming Ding	Inte	nsive	e lect	ures	30		
	Advanced Robot Development Theory II	Α	Р	132062	1	Jun Takamatsu, Ming Ding, (Akihiko Yamaguchi)	Inte	Intensive lectures		30			
	Lecture of Information Security Management Literacy I	С	L	130063	1	(Hiromitsu Takagi), (Takashi Matsumoto), (Tetsutaro Uehara)	Inte	nsive	e lect	ures	15		(at Osaka Univ. Nakanoshima Center)
	Lecture of Information Security Management Literacy II	С	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	С	Р	130065	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)	Intensive lectures		15				
	Exercise for Information Security PBL B	С	Ш	130066	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)	Intensive lectures		15				
	Exercise for Information Security PBL C	С	Р	130067	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda	Intensive lectures		15	_			
	Exercise for Information Security PBL D	С	Ш	130068	1	Youki Kadobayashi, Takeshi Okuda, (Yoichi Shinoda), (Shinsuke Miwa)	Intensive lectures			15			
	Exercise for Information Security PBL E	С	Ρ	130069	1	Kazutoshi Fujikawa, Atsuo Inomata, Takeshi Okuda	Intensive lectures		ures	15			
	Exercise for Information Security PBL F	С	Р	130070	1	(Atsuo Inomata), Takeshi Okuda, (Hideaki Sone), Yuichi Hayashi, (Naofumi Honma)	Intensive lectures			15			
	Exercise for Information Security PBL G	С	Ш	130071	1	Kazutoshi Fujikawa, (Atsuo Inomata), Takeshi Okuda, (Shingo Okamura)	Inte	nsive	e lect	ures	15		
	Hardware Security	С	L	130072	1	Yuichi Hayashi		2			15		
	Commentaries on Science and Tech	nol	ogy	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.
ts	Skills for English Presentation I			110001	1	(David Sell)	2				15	0	Tuesday and Friday (Based on TOEIC score)
bjec	Methods of English Communication	n I		110002	1	Mike Barker			2		15	0	
Sul	Methods of English Communication	n II		111003	1	Mike Barker				2	15	0	
General Subjects	Advanced Scientific Writing	_		112004	1	Mike Barker		2			15	0	
ene	Skills for English Presentation II			110005	1	Mike Barker	2				15	0	
Ů	Project Management for Research			110006	1	Mike Barker		2			15	0	
	Literature Search			110007	1	Mike Barker			2		15	0	
	Digital Media		П	110008	1	Mike Barker				2	15	0	

	Intercultural Communication	110009	1	(David Sell)				2	15	0	Advanced Specific Field Seminar II
	Intellectual Property Rights	110010	1	Kozo Kubo	2			15	0		
	Global Entrepreneur I	111011	1	Faculty members in charge	Inter	nsive		ures	15		
	Global Entrepreneur II	111012	1	Faculty members in charge	Inter				15		
	Global Entrepreneur III	112013	1	Faculty members in charge	Inter	nsive	e lect	ures	15		
	Global Entrepreneur IV	112014	1	Faculty members in charge	Intensive lectures		ures	15			
	Global Entrepreneur V	112015	1	Faculty members in charge	Inter	nsive	e lect	ures	15		
Subjects	Philosophy of Science	000103	1	(Hiroshi Nakao)		4		П	15		Common subject for all schools.
ubje	Technology and Professional Ethics	000104	1	(Shushi Ueda)				2	15	0	Common subject for all schools.
ı.S	Information Technology for Environmental Issues	110016	1	_		_	_	\neg	15	Ť	N/A in this academic year
General	Japanese Culture	000105	2	(Adarsh Bala Sharma)	2	2	2	2	30	0	Common subject for all schools.
Gen	Japanese Class for Begginers I	000303	2	(Mikiko Iwasaki), (Noriko Kunii), (Akiyo Kasai)		_	_	4	30		Common subject for all schools.
ľ	Japanese Class for Begginers II (1)		1	(Noriko Nakao)				2			For students from abroad Common subject for all schools.
		000204	-					_	15		For students from abroad Common subject for all schools.
	Japanese Class for Begginers II (2)	000205	1	(Noriko Nakao)	2			Щ	15		For students from abroad Common subject for all schools.
	Japanese Class for Begginers Ⅲ(1)	000206	1	(Masako Hashimoto)			-	2	15		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	Differen	t for re	spective	themes	30		
	Academic Volunteer II	110018	1	Faculty members in charge	Differen	t for re	spective	themes	30		
	Advanced Computing Architecture I	140001	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Differen	t for res	pective	subjects			
	Advanced Computing Architecture II	140002	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Differen	t for res	pective	subjects			
	Advanced Computing Architecture III	140003	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi Hong, Renyuan Zhang	Differen	t for res	pective	subjects			
	Advanced Computing Architecture W	140004	1	Yasuhiko Nakashima, Takashi Nakada, Tran Thi	Differen	t for res	meetive	onhiaeto			
	Advanced Computing Architecture IV	140004		Hong, Renyuan Zhang	Lineren	. 101 FES	-procuve	uvječis			
	Advanced Dependable System I	140005	1	Michiko Inoue, Fukuhito Ooshita	Differen	t for res	pective	subjects			
	Advanced Dependable System II	140006	1	Michiko Inoue, Fukuhito Ooshita	Differen	t for res	pective	subjects			
	Advanced Dependable System III	140007	1	Michiko Inoue, Fukuhito Ooshita	Differen	t for res	pective	subjects			
	Advanced Dependable System IV	140008	1	Michiko Inoue, Fukuhito Ooshita	Differen	t for res	pective	subjects			
	41 1III : G		_	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa,							
	Advanced Ubiquitous Computing Systems I	140009	1	Manato Fujimoto	Differen	t for res	pective	subjects			
	Advanced Ubiquitous Computing Systems II	140010	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa,	Differen	t for res	pective	subjects			
				Manato Fujimoto Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa,				\dashv			
	Advanced Ubiquitous Computing Systems III	140011	1	Manato Fujimoto	Differen						
	Advanced Ubiquitous Computing Systems IV	140012	1	Keiichi Yasumoto, Yutaka Arakawa, Hirohiko Suwa, Manato Fujimoto	Differen						
	Advanced Mobile Computing I	140013	1	Minoru Ito, Naoki Shibata	Differen			-			
	Advanced Mobile Computing II	140014	1	Minoru Ito, Naoki Shibata	Differen			-			
e e	Advanced Mobile Computing III	140015	1	Minoru Ito, Naoki Shibata	Differen						
Science	Advanced Mobile Computing IV	140016	1	Minoru Ito, Naoki Shibata	Differen			_			
	Advanced Software Engineering I	140017	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Differen	t for res	pective	subjects			
tion	Advanced Software Engineering II	140018	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Differen	t for res	pective	subjects			
mat	Advanced Software Engineering III	140019	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Differen	t for res	pective	subjects			
for	Advanced Software Engineering IV	140020	1	Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hiroaki Hata	Differen	t for res	pective	subjects			
Advanced Topics in Information	Advanced Software Design and Analysis I	140021	1	Hajimu Iida, Kohei Ichikawa	Differen	t for res	pective	subjects			
38 ii	Advanced Software Design and Analysis II	140022	1	Hajimu Iida, Kohei Ichikawa	Differen	t for res	pective	subjects			
opic	Advanced Software Design and Analysis III	140023	1	Hajimu Iida, Kohei Ichikawa	Differen	t for res	pective	subjects			
d T	Advanced Software Design and Analysis IV	140024	1	Hajimu Iida, Kohei Ichikawa	Differen	t for res	pective	subjects			
nce	Advanced Cyber Resilience I	140025	1	Youki Kadobayashi	Differen	t for res	pective	subjects			
dva	Advanced Cyber Resilience II	140026	1	Youki Kadobayashi	Differen	t for res	pective	subjects			
Ā	Advanced Cyber Resilience III	140027	1	Youki Kadobayashi	Differen	t for res	pective	subjects			
	Advanced Cyber Resilience IV	140028	1	Youki Kadobayashi	Differen	t for res	pective	subjects			
	Advanced Information Security Engineering I	140029	1	Yuichi Hayashi	Differen	t for res	pective	subjects			
	Advanced Information Security Engineering II	140030	1	Yuichi Hayashi	Differen	t for res	pective	subjects			
	Advanced Information Security Engineering III	140031	1	Yuichi Hayashi	Differen	t for res	pective	subjects			
	Advanced Information Security Engineering IV	140032	1	Yuichi Hayashi	Differen			-			
	Advanced Internet Architecture and Systems I	140033	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi	Differen	t for res	pective	subjects			
			Ļ.	Kakiuchi, Akira Yutani				_			
	Advanced Internet Architecture and Systems II	140034	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Differen	t for res	pective	subjects			
	Advanced Internet Architecture and Systems III	140035	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Differen	t for res	pective	subjects			
	Advanced Internet Architecture and Systems IV	140036	1	Kazutoshi Fujikawa, Ismail Arai, Masatoshi Kakiuchi, Akira Yutani	Differen	t for res	pective	subjects			
1	Advanced Computational Linguistics I	140030	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Differen		_	_			
		140037	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Differen			-			
		1-10090	1	1 aji mansumono, masasin sinimoo, riiroyuki shindo, riiroshi Noji			_	_		\vdash	
	Advanced Computational Linguistics II	140090	- 1	Vuji Mateumoto Macachi Chimbo Himomili Chimbo Hima 1: No.							
	Advanced Computational Linguistics III	140039	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji			pective	_			
	Advanced Computational Linguistics III Advanced Computational Linguistics IV	140040	1	Yuji Matsumoto, Masashi Shimbo, Hiroyuki Shindo, Hiroshi Noji	Differen	t for res	pective	subjects			
	Advanced Computational Linguistics III		-			t for res	spective	subjects subjects			

Advanced Topics in Information Science

	Advanced Augmented Human Communication III	140043	1	1 Satoshi Nakamura		nt for res	spective s	ubjects			
	Advanced Augmented Human Communication IV	140044	1	Satoshi Nakamura	Differer	nt for res	spective s	ubjects			
	Advanced Network Systems I	140045	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			spective s			Н	
	Advanced Network Systems II	140046	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang			spective s			Н	
	Advanced Network Systems III	140047	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	_		spective s			Н	
	Advanced Network Systems IV	140048	1	Minoru Okada, Takeshi Higashino, Duong Quang Thang	Differer	nt for res	spective s	ubjects		Н	
	Advanced Interactive Media Design I	140049	1	Hirokazu Kato, Christian Sandor,	Differer	nt for res	spective s	ubjects			
	Advanced Interactive Media Design II	140050	1	Takafumi Taketomi, Alexander Plopski Hirokazu Kato, Christian Sandor,	Differer	nt for res	spective s	ubiects			
				Takafumi Taketomi, Alexander Plopski Hirokazu Kato, Christian Sandor,							
	Advanced Interactive Media Design III	140051	1	Takafumi Taketomi, Alexander Plopski	Differer	nt for res	spective s	ubjects			
	Advanced Interactive Media Design IV	140052	1	Hirokazu Kato, Christian Sandor, Takafumi Taketomi, Alexander Plopski			spective s				
	Advanced Optical Media Interface I	140053	1	Yasuhiro Mukaigawa			spective s			_	
	Advanced Optical Media Interface II	140054	1	Yasuhiro Mukaigawa			spective s			_	
	Advanced Optical Media Interface III	140055	1	Yasuhiro Mukaigawa			spective s			_	
	Advanced Optical Media Interface IV	140056	1	Yasuhiro Mukaigawa	_		spective s			_	
	Cybernetics and Reality Engineering I	140057	1	Kiyoshi Kiyokawa	Differer	nt for res	spective s	ubjects			
	Cybernetics and Reality Engineering II	140058	1	Kiyoshi Kiyokawa	Differer	nt for res	spective s	ubjects			
	Cybernetics and Reality Engineering III	140059	1	Kiyoshi Kiyokawa	Differer	nt for res	spective s	ubjects			
	Cybernetics and Reality Engineering IV	140060	1	Kiyoshi Kiyokawa	Differer	nt for res	spective s	ubjects			
	Advanced Ambient Intelligence I	140061	1	(Norihiro Hagita)	_		spective s				
	Advanced Ambient Intelligence II	140062	1	(Norihiro Hagita)			spective s			_	
	Advanced Ambient Intelligence III	140063	1	(Norihiro Hagita)	Differer	nt for res	spective s	ubjects			
	Advanced Ambient Intelligence IV	140064	1	(Norihiro Hagita)	Differer	nt for res	spective s	ubjects			
	Advanced Robotics I	140065	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Differer	nt for res	spective s	ubjects			
	Advanced Robotics II	140066	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Differer	nt for res	spective s	ubjects			
i i	Advanced Robotics III	140067	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Differer	nt for res	spective s	ubjects			
	Advanced Robotics IV	140068	1	Tsukasa Ogasawara, Jun Takamatsu, Ming Ding	Differer	nt for res	spective s	ubjects			
	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	Differer	nt for res	spective s	ubjects			
	Advanced Large-Scale Systems Management I	140073	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara	Differer	nt for res	spective s	ubjects		Н	
	Advanced Large-Scale Systems Management II	140074	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara			spective s			_	
	Advanced Large-Scale Systems Management III	140075	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara			spective s			_	
	Advanced Large-Scale Systems Management IV	140076	1	Shoji Kasahara, Masahiro Sasabe, Jun Kawahara			spective s			_	
	Advanced Mathematical Informatics I	140077	1	Kazushi Ikeda			spective s				
	Advanced Mathematical Informatics II	140077	1	Kazushi Ikeda			spective s			_	
	Advanced Mathematical Informatics III	140079	1	Kazushi Ikeda			spective s			_	
	Advanced Mathematical Informatics IV	140080	1	Kazushi Ikeda			spective s			_	
	Advanced Imaging-based Computational Biomedicine I	140081	1	Yoshinobu Sato, Yoshito Otake			spective s			_	
	Advanced Imaging-based Computational Biomedicine II	140081	1	Yoshinobu Sato, Yoshito Otake	_		spective s				
	Advanced Imaging-based Computational Biomedicine III	140082	1	Yoshinobu Sato, Yoshito Otake			spective s				
	Advanced Imaging-based Computational Biomedicine IV	140084	1	Yoshinobu Sato, Yoshito Otake			spective s				
	Advanced Computational Systems Biology I	140085	1	Shigehiko Kanaya			spective s		\vdash	Н	
	Advanced Computational Systems Biology II	140086	1	Shigehiko Kanaya							
	Advanced Computational Systems Biology III	140087	1	Shigehiko Kanaya	Different for respective subjects						
	Advanced Computational Systems Biology IV	140087	1	Shigehiko Kanaya	Different for respective subjects		\vdash				
	Seminar I	140101	1	Faculty members in charge of courses selected by students	2		15				
	Seminar II	140101	1	Faculty members in charge of courses selected by students Faculty members in charge of courses selected by students			2		15		
	Research Work	150001	4	Faculty members in charge of courses selected by students					10		
	Theme Research	150001	4	Faculty members in charge of courses selected by students	Н		$\vdash \vdash$			\vdash	
	International Communications A	160002	1	Mike Barker, (David Sell)	2	2	2	2	15		
	International Communications A International Communications B	160001	1	Mike Barker, (David Sell) Mike Barker, (David Sell)	2	2	2	2	15	0	
,	International Practice A	160002	2	·			spective t		30	0	10 classes will be offered.
	International Practice A International Practice B	160003	2	Faculty members in charge of courses selected by students Faculty members in charge of courses selected by students			spective t		30	H	(1credit for 2 classes) 10 classes will be offered.
	International Practice B International Practice C	160004	2	Faculty members in charge of courses selected by students Faculty members in charge of courses selected by students			spective t		30	0	(1credit for 2 classes) 10 classes will be offered.
	Advanced Specific Field Seminar I	160006	1	racany members in charge of courses selected by students			Permit	ies	15	\vdash	(1credit for 2 classes) N/A in this academic year
	Advanced Specific Field Seminar II	160006	1	— (David Sell)	\vdash		П	2	15	0	1011 m one academic year
1	Advanced Specific Field Seminar II Advanced Cutting-edge Research Seminar I	160007	1	Faculty members in charge	Н	H	Н	2	15	0	
	Advanced Cutting edge Research Seminar II	160009	1	Faculty members in charge	\vdash	\vdash	\vdash	2	15	0	
_	ggau commut II		-	1 would members in charge				_	10	\cup	<u> </u>

Doctoral Course

	Advanced Cutting-edge Research Seminar III	160010	1	Faculty members in charge				2	15	0	
	Advanced Cutting-edge Research Seminar IV	160011	1	Faculty members in charge				2	15	0	
se	Advanced Project Management	160012	2	Faculty members in charge of courses selected by students	Offe	red as	neces	ssary	30		
ours	Research Status Hearing	160013	2	Faculty members in charge of courses selected by students	Offe	red as	neces	ssary	30		
ರ	Doctoral Research I	170001	3	Faculty members in charge of courses selected by students	Offer	red as ssary			45		
toral	Doctoral Research III	170003	3	Faculty members in charge of courses selected by students	Offer	red as ssary			45		
octo	Doctoral Research V	170005	3	Faculty members in charge of courses selected by students		red as ssary			45		
D	Doctoral Research II	170002	3	Faculty members in charge of courses selected by students				ed as ssary	45		
	Doctoral ResearchIV	170004	3	Faculty members in charge of courses selected by students				ed as ssary	45		
	Doctoral ResearchVI	170006	3	Faculty members in charge of courses selected by students			Offer neces	ed as ssary	45		

- $\boldsymbol{\cdot}\text{``L''}$ in the "Type" column stands for lectures, "P" for $\,$ practices.
- \cdot "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.

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

Master's Course

	1						
Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
	Computer System	000101	1	Nakashima	April	15	Common Subjects for All Graduate Schools
	Algorithm	000102	2 1 Inoue(others)		May-June	15	Common Subjects for All Graduate Schools
cts	Introduction to Biological Science	000202	1	Maki(others)	May-June	15	Common Subjects for All Graduate Schools
Subje	Introduction to Materials Science	000301	1	Katsuki• Aratani	June-July	15	Common Subjects for All Graduate Schools
Common Subjects	Commentaries on Science and Technology	000201	1	Faculty members in charge	Jun-July	15	Common Subjects for All Graduate Schools
ŭ	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
	Mathematical Analyses for Materials Science	311001	1	Ishizumi•Tomita•Takeda• Noda•Uenuma•Sasagawa• Nagao•Yamazaki	April		
	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).
ects	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).
General Subjects	Science & Technology Policy and Intellectual Property	310005	1	Kubo • (Ohtake • Matsuo)	July	15	
Genera	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
	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	
Specialized Subjects	Advanced Organic Reactions and Stereochemistry Special	332306	1	Fujiki•Kakiutchi•Morimoto• Tanimoto	October- November	15	
lized S	Biofunctional Materials Special	332607	1	Kikuchi•Ando•Yasuhara• Tahara•Terada	October- November	15	
Special	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	
Expe	riments in Materials Science	340001	2	Faculty members of assigned laboratory	April-May	60	
Semi	nar A	340002	1	Faculty members of assigned laboratory		15	
Semi	nar B	340003	2	Faculty members of assigned laboratory		30	
Interd	lisciplinary Seminar A	340004	1	Faculty members		15	
Interd	lisciplinary Seminar B	340005	2	Faculty members		30	
Resea	arch Thesis	350001	6	Faculty members of assigned laboratory			
Specialized Research on Materials Science		350002	5	Faculty members of assigned laboratory			
Resea	arch 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)

Maste	r's Course (i course)						
Category	Subject	Subject Number	Number of credits	Lecturer	Class period	Total number of classes	Remarks
	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
CommonSubjects	Japanese Class for Beginners II (1) (i)	000204	1	(Nakao)	Autumn semester in first academic year	15	Common Subjects for All Graduate Schools
Соштс	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
	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	
bjects	Materials Science English II (i)	312053	1	McDowell	Autumn semester	15	
General Subjects	Materials Science English III (i)	313054	1	McDowell	Autumn semester	15	
Gene	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
	Photonic Nanoscience I (i)	320051	1	Faculty members of respective laboratories	Autumn semester	15	
S	Photonic Nanoscience II (i)	320052	1	Faculty members of respective laboratories	Autumn semester	15	
Basic Subjects	Photon and Condensed Matters I (i)	321153	1	Hosokawa•Jujo	Autumn semester	15	
Basic S	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	
	Quantum Molecular Science (i)	332151	1	Yanagi•Katsuki	Autumn semester	15	
	Surface Science (i)	332152	1	Daimon•Hattori•Takeda• Taguchi	Autumn semester	15	
ects	Advanced Photonic Devices (i)	332253	1	Ohta•Tokuda	Autumn semester	15	
ed Subj	Information Device Science (i)	332254	1	Uraoka • Ishikawa	Autumn semester	15	
Specialized Subjects	Technology for Advanced Measurement(i)	332255	1	Yanagida•Nakamura• Kawaguchi •Okada	Autumn semester	15	
Spe	Electronic and Magnetic Structure (i)	332156	1	Hosoito•Matsui	Autumn semester	15	
	Synthetic Organic Chemistry (i)	332357	1	Morimoto • Tanimoto • (Mizuno)	Autumn semester	15	
Ð	Biomolecular Chemistry (i)	332658	1	Hirota • Matsuo	Autumn semester	15	

Category	Subject	Subject Number		Lecturer	Class period	Total number of classes	Remarks
	Advanced Biomaterials (i)	332659	1	Ando • Terada • Kobayashi	Autumn semester	15	
ts	Photochemical Materials (i)	332360	1	Kawai • Nakashima	Autumn semester	15	
ed Subjec	Organic Functional Materials (i)	332361	1	Yamada • Aratani	Autumn semester	15	
Specialized Subjects	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	
Experir	nents in Materials Science (i)	340051	3	Faculty members of assigned laboratory	Autumn semester	90	
Semina	r (i)	340052	2	Faculty members of assigned laboratory		30	
Interdisciplinary Seminar (i)		340053	2	Faculty members		30	
Researc	ch 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
	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).
subjects	Practical English for Materials Science	363003	2	Chair of Curriculum Committee	January	30	
Internationalization subjects	Science Literacy (Advanced Course I)	360004	1	Faculty members of assigned laboratory	One year	15	
ernationa	Science Literacy (Advanced Course II)	360005	1	Faculty members of assigned laboratory	One year	15	
Inte	International Internship	360006	2	Chair of Curriculum Committee	One year	30	
	Interdisciplinary Internship	360007	1	Faculty members of assigned laboratory	One year	15	
	Photonic Nanoscience Special Lectures	360008	1	Chair of Curriculum Committee	One year	15	
Interdisciplinary subjects	Interdisciplinary Materials Science	360009	1	Daimon,Uraoka,Katsu ki, Tokuda,Nakashima, Aratani,(Sugiyama)	October- December	15	
	Research Management Exercise A	370001	1	Chair of Curriculum Committee	One year	15	
earch Management	Research Management Exercise B	370002	1	Chair of Curriculum Committee	One year	15	
search M	Research Management Exercise C	370003	1	Faculty members of assigned laboratory	One year	15	
Res	Exercise in Advanced Materials Science	370004	2	Faculty members of assigned laboratory	One year	30	
ıary	Seminar for Interdisciplinary Materials Science A	370005	1	Chair of Curriculum Committee	Autumn semester	15	
Interdisciplinary seminars	Seminar for Interdisciplinary Materials Science B	370006	1	Chair of Curriculum Committee	Autumn semester	15	
Inte	Seminar for Interdisciplinary Materials Science C	370007	1	Chair of Curriculum 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.

IX 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 the electronic syllabus.

For the rooms and telephone numbers of the Graduate School of Biological Sciences teaching staff, please access the following URL or proceed to "Top Page of the website of the Graduate School of Biology Sciences— Internal Page— Website of the Administrative Office of the Graduate School of Biological Sciences— Administrative Office of the Graduate School of Biological Sciences— List of Telephone Numbers of Laboratories".

List of Telephone Numbers of laboratories: http://bsw3.naist.jp/gakunai/bio-tel.pdf

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

Our career advisors have rich experience with companies and they, along with the teaching staff supervising the Career Design Committee, will be available for you if you have any issues or concerns regarding your future career or academic courses. In addition, you can find detailed information on the various "Career Support Programs" by proceeding to "Webpage of the Graduate School > For students > Career Support". (Also see the page entitled "10. Learning Support: Career Support 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.

OAcademic 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.

OPower 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	O (~12:00)	0	×	0	0
14:30~16:30	×	0	0	0	0

(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
	Graduate School of Information Science	Wed., June 21		Interview/examinatio n, body measurement,
General medical checkup*1	Graduate School of Biological Sciences	Thu., June 22	All students	visual acuity/hearing tests, blood pressure measurement, chest
onoons.p	Graduate School of Materials Science	Fri., June 23		X-ray, urine tests, and blood tests
	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
Special	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
medical checkup	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. 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	
Safety education	Safety education (common)	Thurs Amil (Ath 5th mariada	All new students
surety education	Safety education (experiment)	Thurs., April 6 4th–5th periods	

^{*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.

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							
No. 2	Self-analysis and Self-promotion seminar	between September and next June.							
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)	From No.1 to No. 6, seminars will be							
No. 7	Simulation of group discussion	held in English							
No. 8	Last-minute seminar								
Correction	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

① Borrowing 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 (8)on 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

User's Guide for NAIST's Information Environment

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



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)

User's Guide for Information Security

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)

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\footnote{"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.



1 1 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	535,800 yen	Spring semester (April to September): Due May 29 (Monday), 2017
Doctoral course	(267,900 yen for a half-year term)	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

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.

^{*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.)

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	
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.)	Division (Extension: 5085)	

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 <u>three consecutive months</u> or <u>longer</u> due to illness or for other justifiable reasons.
- The period of leave of absence is up to <u>one year</u>, however, you may apply for an extension of the period for another <u>one year</u> 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 <u>two weeks prior</u> 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)		

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

^{*}Walid 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

Туре	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	$36.98 - 41.45 \text{ m}^2$	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	
Meeting room Open from 9:00 am to 9:00 pm (Closed from December 29 to January 3)		Extension: 5033 E-mail: fukuri@ad.naist.jp	
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 20 th day of the preceding month (or the following weekday if the day	
Volleyball/basketball court	7:00 am to 10:00 pm	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	
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

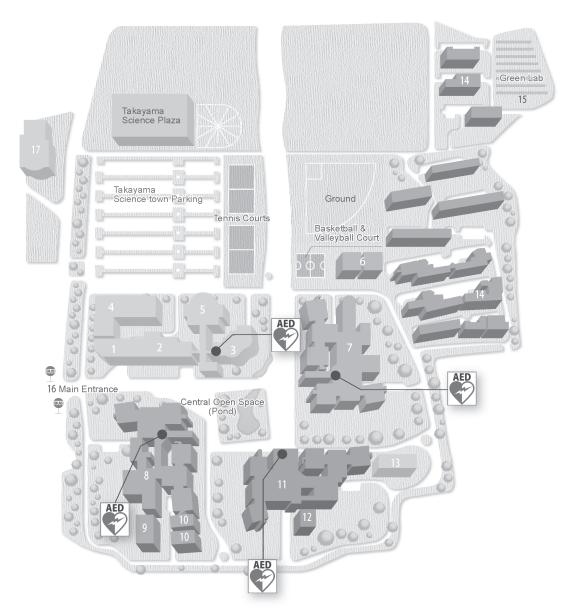
NAIST notifies students of necessary information by e-mail or through the bulletin board. Private notices will usually be sent by e-mail. Please check incoming e-mails carefully: If you overlook important information sent by NAIST such as a request to submit an application, you may suffer a disadvantage.

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
- Graduate School of Biological Sciences /
 Research and Education Center for
 Genetic Information
- 9. Animal Experimentation Facility
- 10. Botanical Greenhouses

- Graduate School of Materials Science / Research and Education Center for Materials Science
- 12. Bio Nano Process Laboratory
- 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

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Supplementary Provisions

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 members 2. 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	Department	Teaching qualification	Subject
School			
Information	Information Science	High school teacher's qualification	Information
Science			
Biological	Biological Sciences	Junior high school teacher's qualification	Science
Sciences		High school teacher's qualification	Science
Materials	Materials Science	Junior high school teacher's qualification	Science
Science		High school teacher's qualification	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	Graduate	Department	Admission capacity		Enrollment
Year	school		Master's	Doctoral	capacity
			Course	Course	
		Information Science	135	40	175
	Information	Information Processing			96
2011	Science	Information Systems			77
		Bioinformatics and Genomics			59
		Total	135	40	407
		Biological Sciences	125	37	162
	Biological	Cell Biology			81
	Sciences	Molecular Biology			101
		Total	125	37	344
		Information Science	135	40	350
	Information	Information Processing			18
	Science	Information Systems			14
2012		Bioinformatics and Genomics			11
		Total	135	40	393
		Biological Sciences	125	37	324
	Biological	Cell Biology			15
	Sciences	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
		Master's	Doctoral	capacity
		Course	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)

- 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



