

先端科学技術研究科  
Graduate School of  
Science and Technology

平成30年度

学生ハンドブック

奈良先端科学技術大学院大学

先端科学技術研究科



Student Handbook 2018

学生ハンドブック

履修案内・キャンパスライフ・諸規則



奈良先端科学技術大学院大学  
Nara Institute of Science and Technology

無限の可能性、ここが最先端  
— Outgrow your limits —

# 平成 30 年度カレンダー

## 2018年4月

日	月	火	水	木	金	土
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5

## 5月

日	月	火	水	木	金	土
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

## 6月

日	月	火	水	木	金	土
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## 7月

日	月	火	水	木	金	土
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

## 8月

日	月	火	水	木	金	土
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

## 9月

日	月	火	水	木	金	土
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

## 10月

日	月	火	水	木	金	土
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

## 11月

日	月	火	水	木	金	土
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1

## 12月

日	月	火	水	木	金	土
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

## 2019年1月

日	月	火	水	木	金	土
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2

## 2月

日	月	火	水	木	金	土
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	1	2

## 3月

日	月	火	水	木	金	土
24	25	26	27	28	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

## 奈良先端科学技術大学院大学 学歌

作曲：古川 聖

若々しく ♩ = 116

かす がやま ずい うんなびき あけ ぼののそらの はるけさ  
とみ おがわ たゆ ることなくせせ らぎのひかりはなる  
いこ まやま ゆう こえみれば なに わづにつ どうもふね

ちの もりの さい せんたんへ どく そうのせいふうを おく  
さか りゆく みら いのそらへ えい えんのしんり を おしめ  
じょう ほうは ここ にあつまり せん たんのえい ち を つな

る なら せ んたん かがく ぎ じゅつ たい がく いん たか き り そ  
す なら せ んたん かがく ぎ じゅつ たい がく いん たか き り そ  
ぐ なら せ んたん かがく ぎ じゅつ たい がく いん あら た な じ

-(う)の きざ は し の ぼ る  
せいの きざ は し の ぼ る  
だいの きざ は し の ぼ る

### 奈良先端科学技術大学院大学学歌

一、春日山 瑞雲なびき  
あけぼのの 空の遙けさ  
知の森の 最先端へ  
独創の 清風を送る  
奈良先端科学技術大学院  
高き理想の階のぼる

二、富雄川 絶ゆることなく  
せせらぎの 光は流る  
盛りゆく 未来の蒼天へ  
永遠の 真理を示す  
奈良先端科学技術大学院  
輝く知性の階のぼる

三、生駒山 夕越え見れば  
難波津に 集う百船  
情報は 平城に集まり  
先端の 叡知を繋ぐ  
奈良先端科学技術大学院  
新たな時代の階のぼる

原作：岡部 剛機

## 2 Concept of the Graduate School of Science and Technology

### 2 – 1. Concept of the Graduate School of Science and Technology

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#### < Objectives >

NAIST will create innovation by undertaking revolutionary research that moves ahead of current trends, especially by creating interdisciplinary research areas by removing the boundaries of traditional research fields. At the same time, NAIST aims to train leading researchers with an aspirational spirit and creativity and engineers with highly advanced expertise through a systematic curriculum, which we have cultivated since our foundation, that covers wide-ranging fields from the most advanced information sciences, biological sciences, and material sciences to interdisciplinary fields that include all of the above.

#### < New Graduate School Features >

- ▶ Removal of barriers between fields for a dynamic educational structure where diverse faculty will perform education together at the forefronts of science and technology
- ▶ An educational format facilitating diverse coursework to respond thoroughly to students' needs and interests
- ▶ Seven 'Education Programs' established to disseminate highly specialized knowledge and training
- ▶ An educational system for basic and advanced knowledge to prepare students for diverse pursuits, and to allow them to reach beyond their expertise
- ▶ Practical training at private businesses or workshops taught by researchers and engineers from private businesses will be offered to implement project-based learning seminars which include real-world applications based on societal needs.

#### < Objectives for each individual student >

Master's Courses cultivate sophisticated expertise in information sciences, biological sciences, or material sciences in order to support society and the economy, wide-ranging qualities to engage in interdisciplinary fields that cover them, a comprehensive perspective to see the entirety of society, and a willingness to be at the forefront of science and technology in society and create innovation.

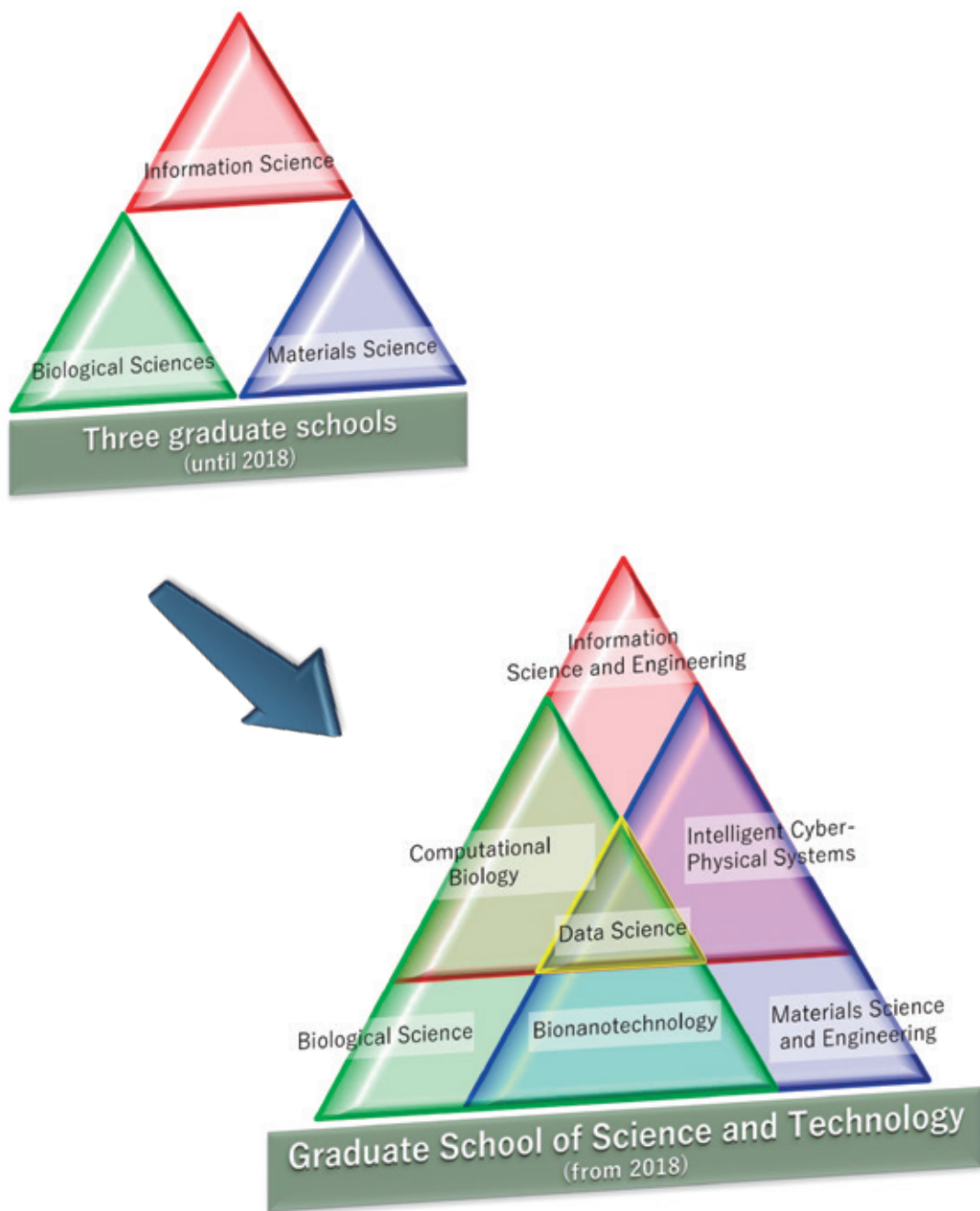
In addition to developing highly advanced knowledge and broad perspectives in information sciences, biological sciences, or material sciences and related interdisciplinary fields, the Doctoral Courses are designed to nurture in researchers and advanced specialized engineers the aspiration to take on challenges in science and technology research with an international mindset, initiative, and independence, and to play a leading role in international society covering industry, government, and academia.

#### < Diverse career options >

Students will obtain a wide range of knowledge, both within their specialized fields and through interdisciplinary development and critical thinking, that will open a wide array of career opportunities.

**2 – 2 . Seven Education Programs**

The Graduate School of Science and Technology offers seven Education Programs to choose from. Programs based on information sciences, biological sciences, and material sciences, which have been cultivated since the school’s foundation, include Information Science and Engineering, Biological Science, and Materials Science and Engineering. Interdisciplinary programs that combine these disciplines include Computational Biology, Intelligent Cyber-Physical Systems, Bionanotechnology, and Data Science. The curriculum framework allows students to take courses to obtain advanced specialties while pursuing their career paths.



**○Seven Education Programs facilitating research in leading-edge science and technology**

Information Science and Engineering	Degrees granted	Master's / Doctorate (engineering, science)
<p>A focused program fostering students to support our dynamic advanced information society, implementing further achievements in diverse fields. This program cultivates specialized knowledge and skills in computer hardware/information network technology, computer/human interaction and media technology, and computer systems to utilize robotics.</p>		

Computational Biology	Degrees granted	Master's / Doctorate (engineering, science, bioscience)
<p>An interdisciplinary program fostering students able to collect and analyze the huge amounts of data related to the phenomena of life, such as medical imaging data and the enormous amounts of bio-information concerning genes, proteins, and metabolism, while producing researchers who will undertake the development of these technologies.</p>		

Biological Science	Degrees granted	Master's / Doctorate (bioscience)
<p>A focused program fostering students to lead societal development and environmental protection in areas such as energy, food supply, resources, and life/health quality. This program enhances knowledge and expertise from the basic principles of the phenomena of life to biodiversity at the molecular, cellular and individual levels of plants, animals and microorganisms.</p>		

Bionanotechnology	Degrees granted	Master's / Doctorate (engineering, science, bioscience)
<p>An interdisciplinary program fostering students to pursue new trends in bioscience based on materials science, and lead novel functional material creation, including development of pharmaceuticals, medical engineering materials, new polymers imitating biological functions, plant-based active components, and artificial protein materials, investigations of novel chemical compounds to augment plant functions, and exploration of cellular engineering to support regenerative medicine.</p>		

Materials Science and Engineering	Degrees granted	Master's / Doctorate (engineering, science)
<p>A focused program fostering students with foundational knowledge of materials science and advanced knowledge to fully utilize their expertise in a program spanning solid state physics, device engineering, molecular chemistry, polymeric materials and bionano-engineering, and undertake next generation science and technology to maintain affluent living and support societal development.</p>		

Intelligent Cyber-Physical Systems	Degrees granted	Master's / Doctorate (engineering, science)
<p>An interdisciplinary program fostering students able to holistically grasp areas including functional material design, novel and real-world sensing devices, analytical device design, system structuring to fully utilize analysis results, and machine and robot control systems, and who have specialized knowledge and experience to support social systems of this IoT era.</p>		

Data Science	Degrees granted	Master's / Doctorate (engineering, science, bioscience)
<p>An interdisciplinary program fostering students with a wide range of expertise in data- and AI-driven sciences in information, biological, and materials sciences, to find hidden 'value' and 'truth' through data processing, visualization, and analysis of huge amounts of data to contribute to science, technology, and societal development.</p>		

※Degree type will be decided based on subjects taken and thesis contents.

**OList of Educational Programs that can be selected for each laboratory**

<Information Science>

Laboratory	PI (Principal Investigator)	Program of Information Science and Engineering	Program of Computational Biology	Program of Intelligent Cyber-Physical Systems	Program of Data Science
Computing Architecture	Yasuhiko Nakashima	○		○	
Dependable System	Michiko Inoue	○		○	
Ubiquitous Computing Systems	Keiichi Yasumoto	○	○	○	
Mobile Computing	Minoru Ito	○		○	
Software Engineering	Kenichi Matsumoto	○		○	
Software Design and Analysis	Hajimu Iida	○		○	
Cyber Resilience	Youki Kadobayashi	○		○	○
Information Security Engineering	Yuichi Hayashi	○		○	
Internet Architecture and Systems	Kazutoshi Fujikawa	○		○	○
Computational Linguistics	Yuji Matsumoto	○		○	○
Augmented Human Communication	Satoshi Nakamura	○		○	○
Network Systems	Minoru Okada	○	○	○	
Interactive Media Design	Hirokazu Kato	○		○	
Optical Media Interface	Yasuhiro Mukaigawa	○	○	○	
Cybernetics and Reality Engineering	Kiyoshi Kiyokawa	○		○	
Ambient Intelligence	Norihiro Hagita	○		○	
Social Computing	Eiji Aramaki	○		○	○
Robotics	Tsukasa Ogasawara	○		○	
Intelligent System Control	Kenji Sugimoto	○	○	○	○
Large-Scale Systems Management	Shoji Kasahara	○		○	
Mathematical Informatics	Kazushi Ikeda	○	○		○
Imaging-based Computational Biomedicine	Yoshinobu Sato	○	○		○
Computational Systems Biology	Shigehiko Kanaya	○	○	○	○
Robotics Vision	Takeo Kanade	○	○	○	

<Biological Sciences>

Laboratory	PI (Principal Investigator)	Program of Biological Science	Program of Computational Biology	Program of Bionanotechnology	Program of Data Science
Plant Cell Function	Takashi Hashimoto	○		○	
Plant Developmental Signaling	Keiji Nakajima	○	○		
Plant Metabolic Regulation	Taku Demura			○	○
Plant Growth Regulation	Masaaki Umeda	○		○	
Plant Stem Cell Regulation and Floral Patterning	Toshiro Ito			○	○
Plant Physiology	Motomu Endo	○	○		○
Plant Immunity	Yusuke Saijo	○	○		○
Plant Secondary Metabolism	Takayuki Tohge	○	○		○
Plant Symbiosis	Satoko Yoshida	○	○	○	
Molecular Signal Transduction	Hiroshi Itoh	○		○	
Functional Genomics and Medicine	Yasumasa Ishida	○			
Tumor Cell Biology	Jun-ya Kato	○	○	○	
Molecular Immunobiology	Taro Kawai	○		○	
Molecular Medicine and Cell Biology	Shiro Suetsugu	○		○	○
Stem Cell Technologies	Akira Kurisaki	○	○		
Developmental Biomedical Science	Noriaki Sasai	○	○	○	
Organ Developmental Engineering	Ayako Isotani	○		○	
Microbial Molecular Genetics	Hisaji Maki	○			
Systems Microbiology	Hirotsada Mori	○	○		○
Cell Signaling	Kaz Shiozaki	○	○	○	
Applied Stress Microbiology	Hiroshi Takagi	○		○	
Environmental Microbiology	Shosuke Yoshida	○	○	○	
Structural Biology	Toshio Hakoshima	○	○		
Membrane Molecular Biology	Tomoya Tsukazaki	○		○	
Gene Regulation Research	Yasumasa Bessho	○	○	○	○
Systems Neurobiology and Medicine	Naoyuki Inagaki	○		○	
Computational Biology	Yuichi Sakumura	○	○		○

<Materials Science>

Laboratory	PI (Principal Investigator)	Program of Materials Science and Engineering	Program of Intelligent Cyber-Physical Systems	Program of Bionanotechnology	Program of Data Science
Quantum Materials Science	Hisao Yanagi	○	○		
Surface and Materials Science	Hiroshi Daimon	○			○
Advanced Polymer Science (no new assignment)	Michiya Fujiki				
Photonic Device Science	Jun Ohta	○	○	○	
Information Device Science	Yukiharu Uraoka	○	○	○	○
Synthetic Organic Chemistry	Kiyomi Kakiuchi	○		○	
Supramolecular Science	Shun Hirota	○		○	
Photonic Molecular Science	Tsuyoshi Kawai	○		○	
Photofunctional Organic Chemistry	Hiroko Yamada	○	○	○	
Sensing Devices	Takayuki Yanagida	○			
Organic Electronics	Masakazu Nakamura	○	○		
Bio-Process Engineering	Yoichiro Hosokawa	○		○	○
Complex Molecular Systems	Hironari Kamikubo	○		○	○
Nanostructure Magnetism	Nobuyoshi Hosoi	○			
Precision Polymer Design and Engineering	Tsuyoshi Ando	○		○	
Data Driven Chemistry	Kimito Funatsu				○
Biomimetic and Technomimetic Materials Science	Gwenael RAPENNE	○		○	
Nanomaterials and Polymer Chemistry	Hiroharu Ajiro	○		○	
Materials Informatics	Miho Hatanaka	○			○
Mesoscopic Materials Science	Eiji Fujii, Hideaki Adachi	○			
Intelligent Materials Science (no new assignment)	Makoto Izumi				
Functional Polymer Science	Takahiro Honda, Hiroshi Enomoto	○		○	
Ecomaterial Science	Katsunori Yogo, Kazuya Goto	○	○		
Sensory Materials and Devices	Keishi Kitamura, Masaki Kanai	○	○	○	
Advanced Functional Materials	Yasuyuki Agari, Yutaka Fujiwara	○	○	○	

※The above information is as of February 2018 (including undecided April 2018). For educational programs that can be selected in the newly established laboratory, please check the latest information from the NAIIST website etc.

## 2 – 3. Curriculum for Master's Courses

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Master's Courses offer the following categories of subjects:

### ◇General Subjects

This category includes courses on ethics, philosophy, communication, intellectual property rights, venture entrepreneurship, and languages in order to cultivate a wide range of qualities and social and international skills that are essential for the next generation of science and technology leaders. English classes will be organized into different levels and help students gain the communication skills necessary to be successful in international society through lectures on communication, presentation, discussion, and writing.

### ◇Science and Technology Subjects

Subjects are offered in four subcategories to help students from different academic backgrounds to understand and discuss the latest science and technology and social needs in various fields. These subjects are designed to cultivate individuals with broad perspectives, flexible inspiration, and creativity to have a comprehensive view of other science and technology fields.

#### ① Introduction Subjects

Students develop a cohesive view by learning about each research field under the seven Education Programs from a comprehensive perspective, including how the most world-wide scientific advancements have developed and merged with each other and what types of new science and technology and research fields will be created in the future.

#### ② Basic Subjects

These Basic Subjects cater to students from a wide range of fields, allow them to tackle different fields or interdisciplinary fields in addition to their specialized fields, and help them to obtain the foundational knowledge required to take individual Education Programs. Basic Subjects are designed to supplement each student's ability from any education program according to their academic history.

#### ③ Specialized Subjects

This is a core lecture in the program in which students gain advanced specialized knowledge along with the human resource development goal of each program. These selective subjects present challenges for the Project Based Learning subjects for each student and provide opportunities within their career paths at the end of the program. Students will engage in exercises to work on the themes presented by students from other labs and to perform research in advanced fields with advanced technologies and methodology. They will also engage in Project Practice to learn the spirit of "mono-tsukuri" manufacturing through participating in internships offered by companies with specific themes.

#### ④ PBL Subjects

As the culmination of "Science and Technology Subjects," students explore issues in science and technology in collaboration with students from other fields or labs and develop the ability to resolve them in a PBL (Project Based Learning) format. PBL subjects are required subjects and they will not only provide students with broader perspectives in their fields of specialization but also nurture their interdisciplinary communication capability and the aspirational spirit that will be critical when researchers and engineers from different specializations pioneer interdisciplinary fields together.

Among the “Basic Subjects” and “Specialized Subjects,” Core Subjects are designated either as required or a selection is required for each of the Education Programs as they are necessary to obtain specialized knowledge that are key to each course. (See “4-4 Completion Requirements” in “Chapter 4. Registration Procedure” in this document for details on the Core Subjects.

#### ◇Research-based Subjects

The following subjects are offered as they are directly related to students’ master’s theses in order to develop their ability to apply their specialized knowledge to address specific issues in science and technology based on the wide-ranging foundational concepts they have learned.

- Seminar I, II

During the seminar, students collaborate to examine their research work through presentations and discussions on the achievements in their master’s theses research or survey for their academic paper. The seminar also builds students’ aptitude for presentations and discussions.

- Colloquium A, B

Visiting instructors examine the most advanced science and technology fields that continue to evolve and students discuss the topic to reinforce the development of their research work.

- Research Experiments I, II

This subject is designed to teach the principles and methodology of science and technology while fostering the ability for developing research plans.

- Research Thesis

As the culmination of the Master’s Course, this subject develops aptitude for extracting new, effective, and practical conclusions from the data obtained from research experiments, developing new challenges based on the conclusions extracted, and logically stating research backgrounds, processes, and conclusions for scientific papers and reports.

#### ◇Other Education

##### ① Education related to performing research

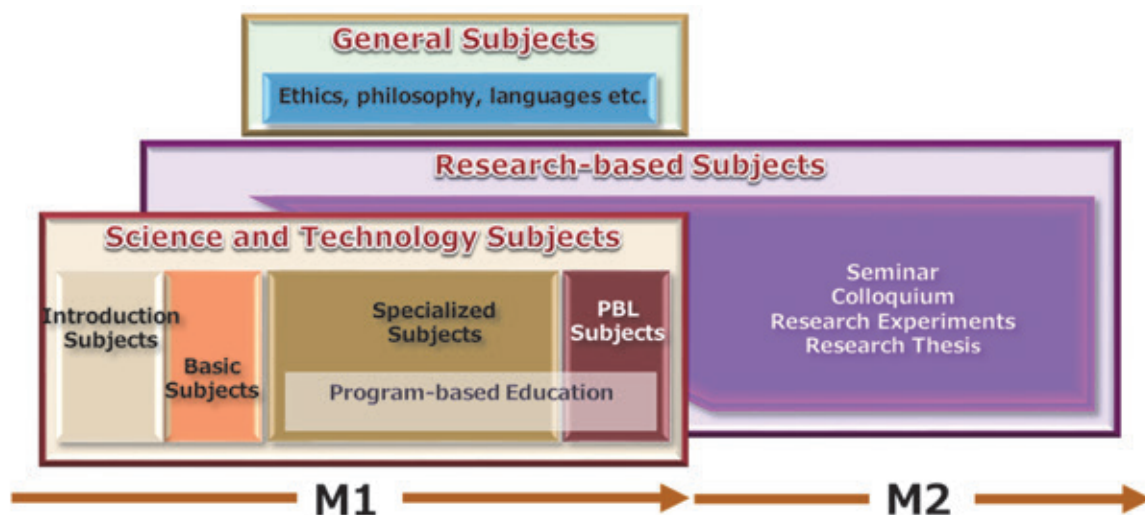
In order to pursue research work safely and legally, lectures and lab work are offered right after students are admitted or allocated to labs. The courses include a Research Ethics Workshop, a Genetic Modification Experiment Workshop, an RI/X-Ray Safety Workshop and Practical Training, an Animal Experiment Workshop, Information Network Guidance, Information Security Workshop/Training, and a Chemical Handling Workshop and Practical Training. A Mental/Physical Health Workshop is also available for learning mental and physical health management.

##### ② Career Education

Career Education reinforces students’ abilities for developing and actualizing their career vision in response to social needs. It is provided in cooperation with private businesses and public research institutions to prepare students for their future achievements in various fields in society. This includes a training workshop for discussing Master’s degree holders’ careers in society, a job seminar for discussing job matching, and lectures for learning from the experiences of company leaders, innovative engineers, graduates of NAIST, or venture entrepreneurs for better career paths.



[Outline of Curriculum for Master's Courses]



## 2 – 4. Curriculum for Doctoral Courses

The Doctoral Courses offer the following groups of subjects:

### ◇ Courses for Research Skills

The following subjects are offered to develop students' international mindsets and international communication skills

- Advanced English A-D  
Advanced international communication is taught in NAIST lectures to teach how to write science and technology papers in English and the methodology of advanced international communication with researchers overseas.
- Overseas English Training I-III  
Students learn English overseas.
- International Training I-III  
Presentations and discussions on research results are held at international conferences or overseas labs.
- Study Abroad I-III  
Students go abroad to participate in research internships at companies overseas or engage in research at universities overseas.

The following subjects are offered to develop students' aspirational spirit and ability for planning projects, discovering issues, combining knowledge and research methodologies, and driving research forward:

- Seminar for International Workshop Planning  
Students experience all aspects of international workshops, including proposals, organization, operation, and management.
- Project Management I-III  
Students learn on and off campus how to present research topics and research fund management, how to operate and promote research projects, and how to solve problems by combining various knowledge and techniques.

Special Lectures are offered to gain advanced specialized knowledge on the following subjects:

- Information Science and Engineering, Computational Biology, Biological Science, Bionanotechnology, Materials Science and Engineering, Intelligent Cyber-Physical Systems, and Data Science  
Students learn in intensive lectures about the latest high-quality research in the fields that correspond to the seven Education Programs in the Master's Courses.

The following subjects are offered to develop students' aspirational spirit and capability for managing research, improving social coordination and comprehensive perspective, and building career paths.

- Innovation Management A, B  
Students obtain knowledge on intellectual property necessary for developing innovation internationally, science and technology ethics, and cross-cultural understanding.
- Career Management A, B  
Students receive instructions on teaching methods, developing their educational ability, fostering transferrable skills, and obtaining knowledge for starting businesses in order to develop the capability that is necessary for diverse career paths including academia and non-academia.

All students are encouraged to take "Study Abroad" so they can cultivate an international mindset and international communication skills. By providing opportunities for education and research on and off campus and outside Japan, students will be trained in various research environments.

◇Courses for Independent Research Abilities

- Research Status Hearing  
Students report on and discuss the progress of their research on specific assignments. This seminar is held for each of the seven Education Programs to give students instructions from broader perspectives and develop their capability for discussion and presentation.
- Doctoral Research I-VI  
Students develop their capability for performing research activities independently, setting topics, and being creative through their research work as these skills are necessary for doctoral dissertations.

◇Other Education

Education related to performing research is provided as in the Master's Courses.

[Outline of Curriculum for Doctoral Courses]



### III Introduction for Incoming Students

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### 3 Introduction for Incoming Students

#### **3 – 1. Selecting Labs and Education Programs [Master's Courses]**

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2018

April 3 (Tue): Orientation for Incoming Students

Please make sure you understand the curriculum, research activities, scholarship programs, and campus living in order to begin your life at NAIST smoothly.

April 4 (Wed): TOEIC-IP Test

All incoming students are encouraged to take this test. Please take this opportunity to understand your English ability at the time of admission and to engage in your future English studies with clear goals. Your test results will be taken into account for assigning you to labs in the materials science fields.

April 5 (Thu) to April 18 (Wed): Registration (Introductory subjects on advanced science and technology)

Students are encouraged to register for and take all of the Introduction Subjects (seven subjects: Being held from April 12 (Thu) to May 8 (Tue)). Students must register for at least three subjects which are required to complete the Master's degree (three credits). Changes can be made during the above registration period.

April 9 (Mon) to April 11 (Wed): Introduction of Labs

Labs for each field will be introduced over the course of three days. Please listen carefully to the work of each lab that you are interested in and think about which lab to choose.

April 12 (Thu) to April 25 (Wed): Lab Visits

Students can visit labs by participating in their briefings, attending their office hours, or making appointments with them by email. This is an opportunity to directly visit the labs you find interesting during the introduction in order to ask professors and other lab supervisors for more detailed information about the lab or to discuss students' research goals, as well as to exchange information with senior associates at the lab.

April 12 (Thu) before 15:00: Submission of Questionnaire on Lab Assignment Preference

Please submit the questionnaire to the office for the same subject area to which you applied in the entrance exam. Based on the lab introductions, select up to three labs. Please also state if you wish to continue on to the five-year course (continue to the Doctoral Courses) at this time.

April 12 (Thu) to May 8 (Tue): Lecture on the Introduction of Science and Technology

Please take the seven "Introduction Subjects" (1 credit each x 7 subjects = 7 credits) for a deeper understanding of the Education Programs that you want to take after getting a broader picture of world

trends and the direction of science and technology. You need at least three credits from these courses in order to complete the Master's Course.

April 13 (Fri) 16:50-18:20: Basic Academic Achievement Test

Regardless of what areas were applied for in the entrance exam, any student who wishes to study at a lab in the Biological Sciences field needs to take this test. The results will be taken into account for a lab assignment in the Biological Sciences field.

April 13 (Fri) Afternoon: Announcement of the Questionnaire Results for Lab Assignment Preference

Each lab will announce the number of students who selected it as their first, second, or third choices on the web so please use this information in order to complete your preferences for the actual survey on lab assignments. Also, students who wish to continue to Doctoral Courses (five-year courses) will be announced.

April 17 (Tue) before 13:00: Submission of the Change of Field Screening Application.

If you wish to be assigned to a lab in a field other than the one you selected at the time of the entrance exam, please attach the "Proof of Advance Interview" that was issued to you after having an interview with the professor or associate professor of the lab you wish to join. Students who wish to be assigned to a lab in the Biological Sciences field must take the Basic Academic Achievement Test.

April 19 (Thu): Notification of the Dates for the Change of Field Screening

Applicants for the Change of Field Screening will be notified individually by email.

April 20 (Fri), 23 (Mon), 24 (Tue) 16:50-18:20 each day: Change of Field Screening

April 25 (Wed): Notification of the Results of the Change of Field Screening

Applicants will be notified individually by email.

April 26 (Thu) before 15:00: Submission of the Survey on Lab Assignment Preference

Please write your first to fifth choices based on your lab visits and the results of the Change of Field Screening.

May 1 (Tue) to 11 (Fri) as needed: Announcement of Lab Assignment Results

Lab assignments will be posted on the web in the order they are decided. Students will receive the results by email as well.

May 1 (Tue) and onward as needed: Selection of Education Program

Students are encouraged to consult their instructors in the order that they are assigned to labs and decide on their Education Program.

May 2 (Wed) to 16 (Wed): Registration (Basic Subjects)

Once your Education Program is decided, please register for Basic subjects. You can change them during the above registration period.

May 25 (Fri) to June 7 (Thu): Registration (General Subjects, Specialized Subjects)

Once your Education Program is decided, please register for General and Specialized subjects. You can change them during the above registration period.

\*The above schedule may change depending on progress and coordination between departments.

[Other workshops, etc.]

April 6 (Fri)

- 1<sup>st</sup> and 2<sup>nd</sup> classes: Information Network Guidance, Safety Education (for all incoming students)
- 3<sup>rd</sup> and 4<sup>th</sup> classes: First RI/X-Ray Workshop (for anyone who may engage in experiments using RI/X-ray)
- 5<sup>th</sup> class: Research Ethics Workshop (for all incoming students)

April 17 (Tue)

- 4<sup>th</sup> and 5<sup>th</sup> classes: Genetic Modification Experiment Workshop (for anyone who may engage in genetic modification experiments)

\*Other procedures for applying for scholarship programs or student dormitories will be explained at the orientation sessions for incoming students so please do not miss them.

### **3 – 2. Selecting Labs and Education Programs [Doctoral Courses]**

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2018

April 4 (Wed): TOEIC-IP Test

All incoming students are encouraged to take this test. Please take this opportunity to understand your English ability at the time of admission and to engage in your future English studies with clear goals. Your test results will be taken into account for assigning you to labs in the material science fields.

April 5 (Thu): Orientation for Incoming Students

Please make sure you understand the curriculum, research activities, scholarship programs, and campus living in order to begin your life at NAIST smoothly.

Onward as needed: Selection of Education Program

Students are encouraged to consult their instructors in the order that they are assigned to labs and decide on their Education Program.

\*The above schedule may change depending on progress and coordination between departments.

[Other workshops, etc.]

April 6 (Fri)

- 1<sup>st</sup> and 2<sup>nd</sup> classes: Information Network Guidance, Safety Education (for all incoming students)
- 3<sup>rd</sup> and 4<sup>th</sup> classes: First RI/X-Ray Workshop (for anyone who may engage in experiments using RI/X-ray)
- 5<sup>th</sup> class: Research Ethics Workshop (for all incoming students)

April 17 (Tue)

- 4<sup>th</sup> and 5<sup>th</sup> classes: Genetic Modification Experiment Workshop (for anyone who may engage in genetic modification experiments)

\*Other procedures for applying for scholarship programs or student dormitories will be explained at the orientation sessions for incoming students so please do not miss them.





IV Courses



## 4 Courses

Students are required to develop plans to register for subjects for each semester, based on full consultation with their research instructors.

The Master's Course program guides the registration for courses. In principle, the Master's Course must include courses outside the group of subjects related to the student's main research activities. However, intensive lectures, educational collaboration programs with other graduate schools of other universities, etc., and certificate programs may not be subject to this restriction.

### 4 – 1. Course Registration

Course registration must be done through the website (Course Registration System) during the designated period. During this period, it is also possible to make course changes and withdrawals in addition to registration for new courses.

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs →  
Course Registration System>>

[The Designated Period for Course Registration 2018]

Semester (Academic Terms)	Period	Subjects
1 <sup>st</sup> Semester (April 12 to May 31)	April 5 (Tue) to 18 (Wed)	• Introduction Subjects (Spring)
	May 2 (Wed) to 16 (Wed)	• Basic Subjects
2 <sup>nd</sup> Semester (June 1 to July 31)	May 25 (Fri) to June 7 (Thu)	• General Subjects, Specialized Subjects
3 <sup>rd</sup> Semester (October 14 to November 30)	October 2 (Tue) to 16 (Tue)	• General Subjects, Specialized Subjects, Introduction Subjects (Autumn), Basic Subjects (Autumn)
4 <sup>th</sup> Semester (December 3 to February 15)	November 27 (Tue) to December 10 (Mon)	• General Subjects, Specialized Subjects, PBL Subjects

After course registration, there is a course withdrawal period for each subject (class). If you wish to withdraw, you can do so during this period.

Course withdrawal period: Before the second class day
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In principle, it is not permitted to simultaneously take two subjects offered in the same time slot. In addition, registering for a subject at another graduate school may require a separate registration procedure in advance.

You will receive an e-mail announcement regarding course registration at the beginning of every term. Please check incoming e-mails carefully: If you overlook important information sent by NAIST, you may suffer a disadvantage.

#### \* Course Registration System

Check the course registration system manual on the NAIST web page. Familiarize yourself with how to use the system and make sure to register correctly.

### ○About credits earned prior to admission to NAIST

The Faculty Council of this graduate school can give credit for up to 10 credits earned at graduate schools other than NAIST, if deemed educationally beneficial to do so. Students who apply for this procedure are required to apply to the Educational Affairs Section of the Educational Affairs Division with the following documents.

- (1) Application form for this purpose (The form is available at the Educational Affairs Division.)
- (2) Certificate of credits earned, or certificate of academic record, issued by the graduate school other than NAIST at which credits have been earned
- (3) Documents that show in some detail the content of lectures given in subjects to be considered for accreditation by NAIST (a copy of the syllabus, etc.)

\* The schedule for application procedures, etc. will be posted on the bulletin board or provided by other means. Please check the information carefully. For more information, please contact the Educational Affairs Section of the Educational Affairs Division.

### ○Credit transfer program with graduate schools of other universities

A credit transfer program is in place between this graduate school and the following graduate schools of other universities:

- Graduate School of Engineering, Osaka University
- Graduate School of Engineering Science, Osaka University
- Graduate School of Humanities and Sciences (Department of Information and Computer Sciences), Nara Women's University

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

- (1) Registration method, etc.
  - (i) Students who want to use the credit transfer program are required to submit the prescribed registration application form and a statement of their reasons.
  - (ii) For the Master's Course, the total number of credits registered shall be a maximum of ten.
  - (iii) In principle, the scope of registration for subjects shall be lectures only, and shall not cover seminars, practical work, experiments, research, etc.
  - (iv) Students may be refused permission to take specific subjects due to reasons including lecture room capacity at the graduate school.
- (2) Credit transfer
 

Credits earned at the previous graduate school are counted as credits towards the completion requirements for this graduate school, provided that the Faculty Council of this graduate school recognizes them as such before the student take such subjects.
- (3) The period for accepting the registration application form and the statement of reasons
 

The period for accepting these documents differs depending on the graduate school. 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 forms and the statement of reason forms are available from the Educational Affairs Section of the Educational Affairs Division.
  - (ii) Students who want to use the credit transfer program are required to select subjects they wish to take by referring to the content of the lectures and the class schedule, etc. at the graduate school; 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 Educational Affairs Section of the Educational Affairs Division.

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

Students can receive necessary research guidance at non-NAIST graduate schools and research institutions, etc. (hereinafter referred to as “non-NAIST graduate schools, etc.”) based on consultation with relevant non-NAIST graduate schools, etc. when it is deemed educationally beneficial to do so. The duration for which such research guidance is available is up to one year in total for the Master’s Course and Doctoral Course, respectively. Permission may be given to extend the duration for the Doctoral Course. Students who want to receive research guidance at non-NAIST graduate schools, etc. are required to consult with their research instructors in advance, and inform the Academic Affairs Section of the Educational Affairs Division at least two months before the month in which such students will start to receive guidance.

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

• 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 Takanojima 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.

• Handling of classes when a weather warning is issued

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

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

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

What is an Emergency Warning?

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

In case of a class cancellation, a supplementary lecture is generally given to students by the lecturer in charge. However, at the lecturer’s discretion, an appropriate study assignment may be given to replace the lecture.

○ Mandatory Exclusion from Class Attendance for those with Infectious Diseases

If you suffer from a contagious illness (such as influenza) diagnosed by a medical doctor, you must observe mandatory exclusion from class attendance as outlined by Article 19 of the School Health and Safety Act. If you are diagnosed with an infectious disease, mandatory class exclusion is immediately in effect and you are required to inform the head of your laboratory of the necessary information (name, student ID number, e-mail address, etc.).

[For reference : Period of class exclusion (Only common disease examples) ]

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

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

In case of a mandatory exclusion from class attendance, the lecturer in charge will generally provide a study assignment equivalent to the content of the missed classes.

In addition, if the University closes to prevent the spread of a contagious illness, the lecturer in charge will generally provide supplementary lectures. However these may be replaced by an appropriate study assignment at the lecturer's discretion.

#### ○Excused absence

If you cannot attend a class due to one of the following reasons, the lecturer in charge for the class may treat this absence as an excused absence at his/her discretion.

- 1) Attending an event due the death of a family member closer than or of a second-degree relationship.
- 2) Appearing at a court or other public office due to jury duty, as an eyewitness or a reference witness, etc.
- 3) Attending a bone marrow examination necessary for a bone marrow transplant.

For students who wish to have their absence treated as an excused absence, they must consult with the lecturer in charge.

When an excused absence is granted, the lecturer will provide a study assignment.

#### ○Treatment for other absences

If you cannot attend a class due to a reason which does not constitute an excused absence, consult the lecturer in charge to provide the reason for the absence.

If the lecturer decides to be lenient for the reason of your absence that may affect grading, the lecturer may give the student an appropriate study assignment that is equivalent to the missed lectures.

## **4 – 2 . Registration Regulations**

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Please refer to the next page.

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

March 26, 2018  
Regulation No. 1

### Article 1 (Purpose)

These regulations stipulate matters necessary for registration by students of the Graduate School of Science and Technology 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 (Subject categories)

1. Subject categories and the number of credits required for completion for the master’s course shall be as shown in Appendix chart 1.
2. Subject categories and the number of credits required for completion for the doctoral course shall be as shown in Appendix chart 2.
3. The subjects, number of credits, and registration methods for the master’s course and doctoral course shall be stipulated separately.

### Article 5 (Registration procedures)

1. Students must, under guidance offered by the main research instructor, choose the subjects they will take.
2. In principle, taking multiple subjects held at the same time is not permitted.

### 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 deemed as a “pass”, and less than 60 points is deemed as a “fail”. For evaluation purposes, academic performance may be represented with the evaluation grade prescribed in accordance with the categories below.

(1) 90 points or more	Excellent
(2) 80 points or more	Very good
(3) 70 points or more	Good
(4) 60 Points or more	Fair
(5) less than 60 points	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 (Index indicating the academic performance)

An objective index indicating the academic performance related a certain period or cumulative period can be calculated and evaluated, based on the evaluation performed pursuant to Article 6-2.

#### Article 12 (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, 2018.

(Abolition)

2. The Registration Regulations for the Graduate School of Information Science at the Nara Institute of Science and Technology, The Registration Regulations for the Graduate School of Biological Sciences at the Nara Institute of Science and Technology and The Registration Regulations for the Graduate School of Materials Science at the Nara Institute of Science and Technology (hereinafter referred to as “the former Registration Regulations”) are abolished.

(Transitional measures)

3. For students who were admitted in the 2017 academic year or earlier (hereinafter referred to as “enrolled students” ) to take subjects, the previous Registration Regulations 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.



Appendix chart 1 (supplement to Article 4, Paragraph 1)

Subject Category		Number of credits required for completion
Courses	Category	
General Subjects	—	4
Science and Technology Subjects	Introduction Subjects	3
	Basic Subjects	1 2
	Specialized Subjects	
	PBL Subjects	2
Research-based Subjects	—	9
Total		3 0

Appendix chart 2 (supplement to Article 4, Paragraph 2)

Subject Category	Number of credits required for completion
Courses for research skills	3
Courses for independent research abilities	7
Total	1 0

## Registration Policies for the Graduate School of Science and Technology at the Nara Institute of Science and Technology

March 27, 2018

Policy No. 1

### Article 1 (Purpose)

These Policies stipulate matters necessary for the subjects, number of credits, and registration methods in accordance with Article 34 of the Registration Regulations for the Graduate School of Science and Technology at the Nara Institute of Science and Technology (2018 Regulations No. 1) (“Registration Regulations”).

### Article 2 (Subjects)

1. The subjects, number of credits, and registration methods for the Master’s Course shall be as shown in Schedule 1.
2. The subjects, number of credits, and registration methods for the Doctoral Course shall be as shown in Schedule 2.

### Supplementary provisions

(Effective date)

1. These Policies shall come into effect on April 1, 2018.

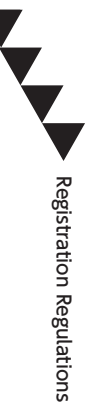
Appendix chart 1 (supplement to Article 2, Paragraph 1)

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

(1) Subject name, etc.

Courses	Category	Subject name	Subject Number	Number of credits	Number of credits required for completion	Registration Category						Remarks		
						Education Programs								
						Information Science and Engineering	Computational Biology	Biological Science	Bionanotechnology	Materials Science and Engineering	Intelligent Cyber-Physical Systems		Data Science	
General Subjects	-	Techonology and Professional Ethics	1001	1	4	◎	◎	◎	◎	◎	◎	◎	two of the six subjects as elective subjects  International students have priority For international students For international students	
		Philosophy of Science	1002	1		○	○	○	○	○	○	○		○
		Science Communication	1003	1		○	○	○	○	○	○	○		○
		Intellectual Property Right	1004	1		○	○	○	○	○	○	○		○
		Global Entrepreneur I	1005	1		○	○	○	○	○	○	○		○
		Global Entrepreneur II	1006	1		○	○	○	○	○	○	○		○
		Global Entrepreneur III	1007	1		○	○	○	○	○	○	○		○
		Global Entrepreneur IV	1008	1		○	○	○	○	○	○	○		○
		Global Entrepreneur V	1009	1		○	○	○	○	○	○	○		○
		Professional Communication I	1010	1		□	□	□	□	□	□	□		□
		Professional Communication II	1011	1		□	□	□	□	□	□	□		□
		Academic Discussion	1012	1		□	□	□	□	□	□	□		□
		Research Presentation	1013	1		□	□	□	□	□	□	□		□
		Research Writing	1014	1		□	□	□	□	□	□	□		□
		Advanced Research Writing	1015	1		□	□	□	□	□	□	□		□
		Japanese Culture	1016	2		○	○	○	○	○	○	○		○
		Japanese Course I	1017	2		△	△	△	△	△	△	△		△
		Japanese Course II	1018	2		△	△	△	△	△	△	△		△
Introduction Subjects	-	Introduction to Information Science and Engineering	2001	1	3	○	○	○	○	○	○	○		
		Introduction to Computational Biology	2002	1		○	○	○	○	○	○	○		
		Introduction to Biological Science	2003	1		○	○	○	○	○	○	○		
		Introduction to Bionanotechnology	2004	1		○	○	○	○	○	○	○		
		Introduction to Materials Science and Engineering	2005	1		○	○	○	○	○	○	○		
		Introduction to Intelligent Cyber-Physical Systems	2006	1		○	○	○	○	○	○	○		
		Introduction to Data Science	2007	1		○	○	○	○	○	○	○		
Science and Technology Subjects	Basic Subjects	Formal Language Theory	3001	1	at least 12 credits from the basic and specialized subjects required for each educational program	□C	△	△	△	△	○	○	For international students	
		Programming Course	3002	1		□C	△	△	△	△	△	○		○
		Principles of Signal Processing	3003	1		○	○	△	△	△	△	○		○
		Applied Analysis	3004	1		○	○	△	△	△	△	○		○
		Data Engineering	3005	1		○	△	△	△	△	△	○		□C
		Machine Learning	3006	1		○	△	△	△	△	△	○		□C
		Optics	3007	1		○	○	△	△	△	△	□C		△
		High Performance Computing Platforms	3008	1		□C	△	△	△	△	△	□C		○
		Software Design	3009	1		□C	△	△	△	△	△	○		△
		Artificial Intelligence	3010	1		□C	△	△	△	△	△	△		△
		Cell Biology	3011	1		△	○	○	○	○	△	△		△
		Molecular Biology	3012	1		△	○	○	○	○	△	△		△
		Cell Membranes and Transport	3013	1		△	○	○	○	○	△	△		△
		Cell Signaling	3014	1		△	○	○	○	○	△	△		△
		Microbial Science	3015	1		△	○	□C	○	○	△	△		△
	Plant Science	3016	1	△		○	□C	○	○	△	△	△		
	Biomedical Science	3017	1	△		○	□C	○	○	△	△	△		
	Cytoskeleton and Cell Cycle	3018	1	△		○	□C	○	○	△	△	△		
	Genetics and Stem Cell Biology	3019	1	△		○	□C	○	○	△	△	△		
	Gene Cloning and DNA Analysis	3020	1	△		○	○	○	○	△	△	△		
	Mathematical Analyses for Materials Science	3021	1	△		△	△	○	○	○	○	△		
	Quantum Mechanics	3022	1	△		△	△	○	○	○	□C	○		
	Core Quantum Mechanics II	3023	1	△		△	△	○	○	○	○	○		
	Core Physical Chemistry I	3024	1	△		△	△	○	○	○	□C	○		
	Physical Chemistry	3025	1	△		△	△	○	○	○	○	○		
	Core Solid State Physics I	3026	1	△		△	△	○	○	○	□C	○		
	Core Solid State Physics II	3027	1	△		△	△	○	○	○	□C	○		
	Core Molecular Science I	3028	1	△		△	△	○	○	○	○	○		
	Core Molecular Science II	3029	1	△		△	△	○	○	○	□C	○		
	Biomaterials Chemistry	3030	1	△		△	△	○	○	○	□C	○		
Specialized Subjects	-	Distributed Computing	4001	1	at least 12 credits from the basic and specialized subjects required for each educational program	○	△	△	△	△	○	△		
		Advanced Algorithm Design	4002	1		○	△	△	△	△	△	○		△
		Ubiquitous Systems	4003	1		○	○	△	△	△	△	□C		△
		Mobile Computing	4004	1		○	△	△	△	△	△	○		△
		Virtual Systems Infrastructure	4005	1		○	△	△	△	△	△	○		△
		Software Engineering	4006	1		○	△	△	△	△	△	○		△
		Internet Engineering	4007	1		○	△	△	△	△	△	○		○
		Computer Network	4008	1		○	△	△	△	△	△	○		○
		Ambient Intelligence	4009	1		○	○	△	△	△	△	○		△
		Natural Language Processing	4010	1		○	△	△	△	△	△	△		○
		Virtual Reality	4011	1		○	△	△	△	△	△	○		△
		Computer Vision	4012	1		○	△	△	△	△	△	○		△
		Computer Graphics	4013	1		○	△	△	△	△	△	○		△
		Media Information Processing	4014	1		○	△	△	△	△	△	○		△
		Wireless Communication Systems	4015	1		○	○	△	△	△	△	○		△
		Signal Detection Theory	4016	1		○	○	△	△	△	△	○		○





Courses	Category	Subject name	Subject Number	Number of credits	Number of credits required for completion	Registration Category						Remarks	
						Education Programs							
						Information Science and Engineering	Computational Biology	Biological Science	Bionanotechnology	Materials Science and Engineering	Intelligent Cyber-Physical Systems		Data Science
Science and Technology Subjects	Specialized Subjects	Human Computer Interaction	4017	1	at least 12 credits from the basic and specialized subjects required for each educational program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	
		Pattern Recognition	4018	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Social System Theory	4019	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Machine Learning and Intelligent Control	4020	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>
		Model-based Control	4021	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Human Robot Informatics	4022	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Mathematical Modeling	4023	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Systems Biology	4024	1		<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Data Mining	4025	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C
		Medical Imaging Analysis	4026	1		<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Biomedical Media Informatics	4027	1		<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Data Science	4028	2		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Special Lecture in Information Science A	4029	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Special Lecture in Information Science B	4030	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Special Lecture in Information Science C	4031	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Special Lecture in Information Science D	4032	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Speech Processing	4033	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Sequential Data Modeling	4034	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Robotics	4035	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>
		Information Security & Our Society	4036	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Information Theory	4037	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Hardware Security	4038	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Coding Theory	4039	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Stochastic Processes	4040	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Computational Neuroscience	4041	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Lecture of Information Security Management Literacy I	4042	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Lecture of Information Security Management Literacy II	4043	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Exercise for Information Security A	4044	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Exercise for Information Security B	4045	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Exercise for Information Security C	4046	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Mathematics for Optimization	4047	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Data Analysis	4048	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Applied Life Sciences · Microbial Science	4049	1		<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Applied Life Sciences · Plant Science	4050	1		<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Applied Life Sciences · Biomedical Science	4051	1		<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Development of Bioscience into Industry I	4052	1		<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Development of Bioscience into Industry II	4053	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Advanced Lecture in Developmental Biology	4054	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Advanced Techniques in Bioscience	4055	1		<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Plant Developmental Physiology	4056	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Developmental Biology of Animals	4057	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Pharmacology and Pathological Chemistry	4058	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Immunology	4059	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		The Biology of Genome and Cancer	4060	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Biological Interactions	4061	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		International Forefront in Bioscience A	4062	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		International Forefront in Bioscience B	4063	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
		Big data in Bioscience	4064	1		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C
Advanced Topics in Biological Science	4065	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Electronic Properties and Atomic Structures of Solids and Surfaces Special	4066	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Photonics Special	4067	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Light and Information Devices Special	4068	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Science for Quantum Information and Energy Conversion	4069	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Biomolecular Science	4070	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Advanced Synthetic Organic and Polymer Chemistry	4071	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Molecular Photo-science	4072	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Polymer Chemistry	4073	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Informatics	4074	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="checkbox"/> C	<input type="radio"/>			
Industrial Science and Technology Special	4075	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Science Special A	4076	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Science Special B	4077	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Science Special C	4078	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Materials Science Special D	4079	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Semiconductor Materials	4080	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Optoelectronics	4081	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Organic Synthesis and Polymer Science	4082	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Project Practice	4083	1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			

For international students

Courses	Category	Subject name	Subject Number	Number of credits	Number of credits required for completion	Registration Category						Remarks	
						Education Programs							
						Information Science and Engineering	Computational Biology	Biological Science	Bionanotechnology	Materials Science and Engineering	Intelligent Cyber-Physical Systems		Data Science
Science and Technology Subjects	PBL Subjects	Information Science and Engineering PBL I	5001	1	2	⊙						Only PBL subjects related to the selected Educational Program can be taken	
		Information Science and Engineering PBL II	5002	1		⊙							
		Computational Biology PBL I	5003	1			⊙						
		Computational Biology PBL II	5004	1			⊙						
		Biological Sciences PBL I	5005	1				⊙					
		Biological Sciences PBL II	5006	1				⊙					
		Bionanotechnology PBL I	5007	1					⊙				
		Bionanotechnology PBL II	5008	1					⊙				
		Materials Science and Engineering PBL I	5009	1						⊙			
		Materials Science and Engineering PBL II	5010	1						⊙			
		Intelligent Cyber-Physical Systems PBL I	5011	1							⊙		
		Intelligent Cyber-Physical Systems PBL II	5012	1							⊙		
		Data Science PBL I	5013	1									⊙
		Data Science PBL II	5014	1									⊙
Research-based Subjects		Seminar I	6001	1	9	⊙	⊙	⊙	⊙	⊙	⊙		
		Seminar II	6002	1		⊙	⊙	⊙	⊙	⊙	⊙		⊙
		Colloquium A	6003	1		⊙	□	□	□	□	□		□
		Colloquium B	6004	1		⊙	□	□	□	□	□		□
		Research Experiments I	6005	2			□	□	□	□	□		□
		Research Experiments II	6006	2			□	□	□	□	□		□
		Research Thesis	6007	5			⊙	⊙	⊙	⊙	⊙		⊙
Number of credits required for completion					30								

In the "Required/elective" column, ⊙, □, ○, and △ represent required subjects, required elective subjects, and elective subjects, respectively. Subjects marked △ do not count as credits toward the completion requirements. C mark represent the core subjects for each educational program.

(2) Registration requirements

A. Students are required to earn 30 credits or more in total. The total credits must include at least 4 credits from "General Subjects," at least 3 credits from introductory subjects in "Science and Technology Subjects," at least 12 credits from the basic and specialized subjects required for each educational program (※), at least 2 credits from PBL subjects, and at least 9 credits from "Research-based Subjects".

B. Of the basic subjects, subjects that can be judged to be have earned from the undergraduate department curriculum may not be included as a unit required for the student to complete.

C. The courses indicated by (※) are required or elective subjects which are core subjects to gain specialized knowledge required by each educational program.

- In the Program of Information Science and Engineering, students are required to study at least two of the following five subjects as elective subjects. ① Formal Language Theory, ② Programming Course, ③ High Performance Computing Platforms, ④ Software Design, ⑤ Artificial Intelligence
- In the Program of Computational Biology, students are required to study at least three of the following seven subjects as elective subjects. However, you can only choose one of ④, ⑤, or ⑥. ① Systems Biology, ② Medical Imaging Analysis, ③ Biomedical Media Informatics, ④ Applied Life Sciences · Microbial Science, ⑤ Applied Life Sciences · Plant Science, ⑥ Applied Life Sciences · Biomedical Science, ⑦ Development of Bioscience into Industry I
- In the Program of Biological Science, students are required to study at least three of the following six subjects as elective subjects. However, you can only select one of ①, ②, or ③. ① Microbial Science, ② Plant Science, ③ Biomedical Science, ④ Cytoskeleton and Cell Cycle, ⑤ Genetics and Stem Cell Biology, ⑥ Advanced Techniques in Bioscience
- In the Program of Bionanotechnology, students are required to study at least three of the following seven subjects as elective subjects. However, you can only select one of ③, ④, or ⑤. ① Core Molecular Science II, ② Biomaterials Chemistry, ③ Applied Life Sciences · Microbial Science, ④ Applied Life Sciences · Plant Science, ⑤ Applied Life Sciences · Biomedical Science, ⑥ Development of Bioscience into Industry I, ⑦ Biomolecular Science
- In the Program of Materials Science and Engineering, students are required to study of the following four subjects, you must study either a two-subject combination of ① and ② or ③ and ④ as elective subjects. ① Core Solid State Physics I, ② Core Solid State Physics II, ③ Core Molecular Science I, ④ Core Molecular Science II. Furthermore, you must study at least two of the following four subjects as elective subjects. ⑤ Biomaterials Chemistry, ⑥ Semiconductor Materials, ⑦ Optoelectronics, ⑧ Organic Synthesis and Polymer Science
- In the Program of Intelligent Cyber-Physical Systems, students are required to study at least three of the following nine subjects as elective subjects. ① Optics, ② High Performance Computing Platforms, ③ Quantum Mechanics, ④ Core Physical Chemistry I, ⑤ Ubiquitous Systems, ⑥ Human Computer Interaction, ⑦ Machine Learning and Intelligent Control, ⑧ Robotics, ⑨ Materials Informatics

( Corrected )

• In the Program of Data Science, students are required to study Data Science. Furthermore, you must study at least one of the following three subjects as elective subjects. Data Engineering, Machine Learning, Data Mining. Furthermore, you must study at least one of the following two subjects as elective subjects. Big data in Bioscience, Materials Informatics.

(3) Numbering Information

Subject numbers consist of 4-digit numbers based on levels of courses.

First digit : The first digit in the 6-digit numbers indicates levels of subjects:

- 1XXX = General Subjects (For master's course)
- 2XXX = Introduction Subjects (For master's course)
- 3XXX = Basic Subjects (For master's course)
- 4XXX = Specialized Subjects (For master's course)
- 5XXX = PBL Subjects (For master's course)
- 6XXX = Research-based Subjects (For master's course)
- 7XXX = Courses for research skills (For doctoral course)
- 8XXX = Courses for independent research abilities (For doctoral course)

From second to fourth digits : The from second to fourth digits in the 6-digit numbers indicate serial

XXXX = Serial numbers (ranging from 01 to 99)

Appendix chart 2 (supplement to Article 2, Paragraph 2)

**Curriculum table of the Graduate School of Science and Technology (Doctoral Course)**

(1) Subject name, etc.

Category	Subject name	Subject Number	Number of credits	Number of credits required for completion	Required/ elective	Remarks
Courses for research skills	Advanced English A	7001	1	3	○	English lectures at NAIST
	Advanced English B	7002	1		○	
	Advanced English C	7003	1		○	
	Advanced English D	7004	1		○	
	Overseas English Training I	7005	2		○	English training overseas (About 3 weeks or more)
	Overseas English TrainingII	7006	2		○	
	Overseas English TrainingIII	7007	2		○	
	International Training I	7008	1		○	Presentations at a international conference
	International TrainingII	7009	1		○	
	International TrainingIII	7010	1		○	
	Study Abroad I	7011	2		○	* Registration requirements B • Internship at an overseas corporation to perform research (About 3 weeks or more) • Research activities at a overseas partner laboratory or research institution (About 3 weeks or more) • Overseas research
	Study AbroadII	7012	2		○	
	Study AbroadIII	7013	2		○	
	Seminar for International Workshop Planning	7014	1		○	Plan an international student workshop, etc.
	Project Management I	7015	1		○	Management of research project, etc
	Project ManagementII	7016	1		○	
	Project ManagementIII	7017	1		○	
	Special Lectures in Information Science and Engineering	7018	1		○	Special lectures corresponding to seven educational programs in the Master's course
	Special Lectures in Computational Biology	7019	1		○	
	Special Lectures in Biological Science	7020	1		○	
Special Lectures in Bionanotechnology	7021	1	○			
Special Lectures in Materials Science and Engineering	7022	1	○			
Special Lectures in Intelligent Cyber-Physical Systems	7023	1	○			
Special Lectures in Data Science	7024	1	○			
Innovation ManagementA	7025	1	○	* Registration requirements B		
Innovation ManagementB	7026	1	○			
Career ManagementA	7027	1	△			
Career ManagementB	7028	1	△			
Courses for independent research abilities	Research Status Hearing	8001	1		◎	Research status hearing (A mid-term report)
	Doctoral Research I	8002	3		○	(The first half-year)
	Doctoral Research II	8003	3		○	(The second half-year)
	Doctoral Research III	8004	3	7	○	(The third half-year)
	Doctoral Research IV	8005	3		○	(The fourth half-year)
	Doctoral Research V	8006	3		○	(The fifth half-year)
	Doctoral Research VI	8007	3		○	(The sixth half-year)
Number of credits required for completion				10		
In the "Required/elective" column, ◎, □, ○, and △ represent required subjects, required elective subjects, and elective subjects, respectively. Subjects marked △ do not count as credits toward the completion requirements.						

\* This curriculum is also used for double degree program students.

## (2) Registration requirements

A. Students are required to earn 10 credits or more in total. The total credits must include at least 3 credits from "Courses for research skills" and at least 7 credits from "Courses for independent research abilities" (including earning 1 credit of "Research Status Hearing").

B. Students are required to actively take two subjects, "Study Abroad I " and "Innovation ManagementA".

## (3) Numbering Information

Subject numbers consist of 4-digit numbers based on levels of courses.

First digit : The first digit in the 4-digit numbers indicates levels of subjects:

- 1XXX = General Subjects (For master's course)
- 2XXX = Introduction Subjects (For master's course)
- 3XXX = Basic Subjects (For master's course)
- 4XXX = Specialized Subjects (For master's course)
- 5XXX = PBL Subjects (For master's course)
- 6XXX = Research-based Subjects (For master's course)
- 7XXX = Courses for research skills (For doctoral course)
- 8XXX = Courses for independent research abilities (For doctoral course)

From second to fourth digits : The from second to fourth digits in the 4-digit numbers indicate serial

XXXX = Serial numbers (ranging from 01 to 99)

#### 4 – 3. Research Ethics Training Session

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.

Session times: April 6 (Fri), 2018 16:50- 18:20 (For Spring students)

October 3 (Wed), 2018 16:50- 18:20 (For Fall students)

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.

#### 4 – 4. Completion Requirements

The following conditions must be satisfied to complete the program. You are responsible for confirming whether or not the completion requirements have been satisfied by consulting with your advisor.

##### <Master's Course>

You must be registered in the Master's Course for at least two years, and complete at least 30 credits (including taking "Research Ethics Training Session" and passing the test). These credits must include at least 4 credits from "General Subjects," at least 3 credits from introductory subjects in "Science and Technology Subjects," at least 12 credits from the basic and specialized subjects required for each educational program (※), at least 2 credits from PBL subjects offered by each educational program, and at least 9 credits from "Research-based Subjects". In addition, you must receive necessary research guidance, your master's thesis must be accepted, and you must pass the final exam.

The courses indicated by (※) are required or elective subjects which are core subjects to gain specialized knowledge required by each educational program.

A student can also study specialized subjects required by educational programs other than the program the student chose.

[The core subjects for each educational program]

##### 【Program of Information Science and Engineering】

You must study at least two of the five subjects listed below as elective subjects.

- ① Formal Language Theory (Basic Subjects)
- ② Programming Course (Basic Subjects)
- ③ High Performance Computing Platforms (Basic Subjects)
- ④ Software Design (Basic Subjects)
- ⑤ Artificial Intelligence (Basic Subjects)

##### 【Program of Computational Biology】

You must study at least three of the seven subjects listed below as elective subjects.

However, you can only choose one of ④, ⑤, or ⑥.

- ① Systems Biology (Specialized Subjects)
- ② Medical Imaging Analysis (Specialized Subjects)
- ③ Biomedical Media Informatics (Specialized Subjects)
- ④ Applied Life Sciences · Microbial Science (Specialized Subjects)
- ⑤ Applied Life Sciences · Plant Science (Specialized Subjects)
- ⑥ Applied Life Sciences · Biomedical Science (Specialized Subjects)
- ⑦ Development of Bioscience into Industry I (Specialized Subjects)



**【Program of Biological Science】**

You must study at least three of the six subjects listed below as elective subjects.

However, you can only select one of ①, ②, or ③.

- ① Microbial Science (Basic Subjects)
- ② Plant Science (Basic Subjects)
- ③ Biomedical Science (Basic Subjects)
- ④ Cytoskeleton and Cell Cycle (Basic Subjects)
- ⑤ Genetics and Stem Cell Biology (Basic Subjects)
- ⑥ Advanced Techniques in Bioscience (Corrected) (Specialized Subject)

**【Program of Bionanotechnology】**

You must study at least three of the seven subjects listed below as elective subjects.

However, you can only select one of ③, ④, or ⑤.

- ① Core Molecular Science II (Basic Subjects)
- ② Biomaterials Chemistry (Basic Subjects)
- ③ Applied Life Sciences · Microbial Science (Specialized Subjects)
- ④ Applied Life Sciences · Plant Science (Specialized Subjects)
- ⑤ Applied Life Sciences · Biomedical Science (Specialized Subjects)
- ⑥ Development of Bioscience into Industry I (Specialized Subjects)
- ⑦ Biomolecular Science (Specialized Subjects)

**【Program of Materials Science and Engineering】**

Of the four subjects below, you must study either a two-subject combination of ① and ② or ③ and ④ as elective subjects.

- ① Core Solid State Physics I (Basic Subjects)
- ② Core Solid State Physics II (Basic Subjects)
- ③ Core Molecular Science I (Basic Subjects)
- ④ Core Molecular Science II (Basic Subjects)

Furthermore, you must study at least two of the four subjects listed below as elective subjects.

- ⑤ Biomaterials Chemistry (Basic Subjects)
- ⑥ Semiconductor Materials (Specialized Subjects)
- ⑦ Optoelectronics (Specialized Subjects)
- ⑧ Organic Synthesis and Polymer Science (Specialized Subjects)

**【Program of Intelligent Cyber-Physical Systems】**

You must study at least three of the nine subjects listed below as elective subjects.

- ① Optics (Basic Subjects)
- ② High Performance Computing Platforms (Basic Subjects)
- ③ Quantum Mechanics (Basic Subjects)
- ④ Core Physical Chemistry I (Basic Subjects)
- ⑤ Ubiquitous Systems (Specialized Subjects)
- ⑥ Human Computer Interaction (Specialized Subjects)
- ⑦ Machine Learning and Intelligent Control (Specialized Subjects)
- ⑧ Robotics (Specialized Subjects)
- ⑨ Materials Informatics (Specialized Subjects)

( Corrected )

**【Program of Data Science】**

The following subject is a requirement.

Data Science ( Specialized Subjects )

Furthermore, you must study at least one of the following three subjects as elective subjects

Data Engineering ( Basic Subjects )

Machine Learning ( Basic Subjects )

Data Mining ( Specialized Subjects )

Furthermore, you must study at least one of the following two subjects as elective subjects.

Big data in Bioscience ( Specialized Subjects )

Materials Informatics ( Specialized Subjects )

<Doctoral Course>

You must be registered in the Doctoral Course for at least three years and complete a total of ten credits (including taking "Research Ethics Training Session" and passing the test). The total credits must include at least three credits from "Courses for research skills" and at least seven credits from "Courses for independent research abilities." In addition, you must receive necessary research guidance, your doctoral dissertation must be accepted, and you must pass the final exam.

#### 4 – 5. Double Degree Program

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

The DD Program of NAIST gives a doctoral course student to register for the partner university at the same time to obtain PhD degrees from both of NAIST and the partner university through guidance of the professors of the two universities. The DD Program has been established with the following five partner universities. The students participating in the program must conduct their studies at each university for at least one academic year. Number of students for acceptance (partner universities students to join NAIST doctoral program) and dispatchment (NAIST students to join partner universities doctoral program) are Limited. In principle, entrance to the program is the fall semester of 2017 and the spring semester of 2018.

Please refer to the following web site for details.

• Implementation Guidelines:

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs → Double Degree Program>>

• Admission Information and Application Guide:

[http://www.naist.jp/en/international\\_students/prospective\\_students/admission\\_information/double\\_degree.html](http://www.naist.jp/en/international_students/prospective_students/admission_information/double_degree.html)

- Unitec Institute of Technology (New Zealand)
- Ulm University (Germany)
- University of Malaya (Malaysia)
- Université Paul Sabatier (France)
- National Chiao Tung University (Taiwan)

V Syllabus, etc.

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## 5 Syllabus, etc.

### 5 – 1. Online Syllabus

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Check the course syllabus at:

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs →  
Online Syllabus System>>

#### \* Online Syllabus System

Please refer to the “online syllabus system manual,” available on the homepage shown above, for how to view online syllabus. Familiarize yourself with how to use the system and regularly check for the latest information.

### 5 – 2. Research Guidance System

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Check the Research Guidance System at:

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs →  
Research Guidance System>>

#### \* Research Guidance System

The Research Guidance System is a network system that records the interim evaluation reports during the second year of the Master’s Course including evaluation results (milestones) by multiple faculty members such as the main advisor and sub-advisors, areas of improvement, and feedback on the thesis (capstone). This system supports research guidance by faculty members in addition to students being able to more proactively report and communicate their research topics and plans to the advisors.

Please refer to the “Research Guidance system manual” posted on the homepage shown above for how to view the Research Guidance system. Familiarize yourself with how to use the system and regularly check for the latest information.

### 5 – 3. Evaluation of academic performance

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#### ○ Notification of completed grade evaluation

Grades will be reported within three weeks after the completion of the course by the lecturer in charge and will be posted on the homepage and bulletin board, etc.

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.

#### ○ Information concerning objections to academic performance evaluation

If you have objections to the grading results you received, please submit a “Letter of Objection concerning Evaluation of Academic Performance” to the Academic Affairs Section of the Educational Affairs Division within one month of receiving your grading results.

(※) Academic Performance Evaluation Objections are possible only when students'cases are 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 the grading standards found in the syllabus, etc.

A response to an objection is given either orally or in writing through the Academic Affairs

Section of the Educational Affairs Division after review by the Graduate School's Education Committee.

The format for an objection form and the flow chart of the process of handling a claim can be found on the University's homepage.

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs → Released dates of Academic Performance>>

#### ○The GPA [Grade Point Average] system

In order to promote the internationalization of future education and increase the transparency of the grading system, we have introduced a GPA system beginning with the students who entered in the 2018 school year. The GPA system will indicate a student's relative standing both within and beyond the University. By calculating a GPA, it can become an index for current learning and achievement; we expect this to help students grasp their academic achievement more objectively and utilize it to create their learning plans.

##### <System Overview>

The GPA system is a common method used in European and American universities to evaluate academic grades. Students receive grade evaluations after course completion and it is converted into Grade Points (GP) with the student's overall average computed as a single value.

##### <Calculation Method>

There are five levels of Grade Points (S, A, B, C, D) as shown below.

Definition and Letter Grade	G P	Evaluation Criteria	Criteria out of 100 points
Excellent (S)	4	Achieved learning outcomes with exceptionally high grade.	90 points or more
Very good (A)	3	Achieved learning outcomes with high grade.	80 points or more
Good (B)	2	Achieved learning outcomes with good grade.	70 points or more
Fair (C)	1	Achieved learning outcomes.	60 Points or more
Fail (D)	0	Did not achieve learning outcomes.	less than 60 points

(For Reference)

Definition and Letter Grade	G P	Evaluation Criteria	Criteria out of 100 points
Accredited (N)	Not Applicable	Considered as completed as studied in an academic course at this university.	Not Applicable
Pass (P)	Not Applicable	Reached the academic level for this course.	Not Applicable
Fail (F)	Not Applicable	Did not reach the academic level for this course.	Not Applicable

##### <Targeted Students>

The students who begin the Master's Course in the 2018 school year and all subsequent years.

## &lt; Targeted Subjects &gt;

All subjects that count towards completion of the Master's Course in the subject categories shown below. However, if a subject cannot be evaluated by the five-level grading scheme due to the nature of the subject, it will be excluded from the GPA calculation.

- ◇ General Subjects
- ◇ Basic Subjects
- ◇ Specialized Subjects

## &lt; Types of GPAs and Calculation Method &gt;

There is a GPA for the academic year (annual GPA) and a GPA for the entire program (cumulative GPA).

Here are the calculation methods for annual and cumulative GPAs. (Round off to two decimal digits in calculating a GPA.)

 Calculation of an Annual GPA

Annual GPA = The sum for all subjects of (the number of credits for a registered subject for the year × GP of the subject)/The total number of credits for the year's subjects.

 Calculation of Cumulative GPA

Cumulative GPA = The sum for all subjects of (the number of credits for a registered subject for the program × GP of the subject)/The total number of credits for the program.

## &lt; How to Treat Retake Subjects &gt;

If a student retakes a subject which he/she has failed, and receives a passing grade or another failed grade as a result, the earlier result and credits are excluded from GPA. (The data before the retake will be excluded.)

## &lt; Treatment on Academic Record &gt;

Both the annual GPA and the cumulative GPA will appear on the academic record.

#### **5 – 4. 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 97 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 fifty seven students from 34 countries are studying at NAIST. We offer them an environment where international students from different backgrounds and cultures study with Japanese students so that many of them grow to be globally-aware human resources who have an international mindset, practical communications skills, excellent techniques in research, and areas of expertise.

#### ○ Scholarships for Studying Abroad

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

1. Support for studying abroad by the Japan Student Services Organization (JASSO) Scholarship  
[http://www.jasso.go.jp/ryugaku/study\\_a/scholarship.html](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 see the following website “Procedures for study / travel abroad” for details.

<https://ad-info.naist.jp/gakusei/member/kaigairyugaku/index.html>

#### ○ 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.

Information about “Safety when travelling abroad” has been included on the following website to contribute to risk management for those students who will or are travelling abroad. We ask that students check the following website to consider and plan for their safety when abroad.

<https://ad-info.naist.jp/gakusei/member/kaigairyugaku/caution/caution.html>

(For Reference)

**Procedures for study/travel abroad**

	Official study abroad※		Travel notification requiring Travel Request	
Types of dispatchment abroad	Course(s) or instruction at an overseas graduate school or research institution	Double degree program	Educational programs not included in 'Official study abroad' offered in cooperation with NAIST at an overseas graduate school or research institution	Conference/symposium/seminar/etc. attendance
Details	Attending of course(s) or receiving instruction at overseas graduate schools or research institutions	Studies at overseas universities in accordance with double degree program regulations	<ul style="list-style-type: none"> <li>• Education at an overseas graduate schools or research institutions</li> <li>• Internship at an overseas graduate schools or research institutions (Held as a NAIST educational program)</li> </ul>	Attending or presenting at a Conference/symposium/seminar/etc.
Duration	In principle, 3 months or more		In principle, less than 3 months	
Necessary paperwork	<ul style="list-style-type: none"> <li>▪ Study Abroad Request</li> <li>▪ Course Registration Request for Special Auditing Dispatchment Student (For students who will attend classes)</li> <li>▪ Application for Special Research Dispatchment Student (For students who will receive instruction)</li> </ul>	Study Abroad Request	Overseas Travel Notification	Overseas Travel Notification
Statistical status	Study abroad student	Study abroad student	Study abroad student	—
University overseas travel insurance	Eligible	Eligible	Eligible	Eligible
Student personal accident Insurance◆	Eligible	Eligible	Eligible	Eligible

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

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

**For private travel**

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

## 5 – 5. 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?

<<NAIST TOP PAGE → For Students (Internal Only) → ALC NetAcademy>>  
 <How to login> Account : MANDARA-DOMAIN¥“MANDARA account”  
 Password: “MANDARA password”

### 4. What Courses are available?

The following five courses are available:

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

### 5. Recommended System Requirements

NetAcademy 2 has been tested on the following platforms:

OS	Windows Vista SP2 / 7 SP1 / 8 , 8.1 ※
WWW Browser	InternetExplorer 8 / 9 / 10 / 11
Browser Plug-in	FLashPlayer 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.

VI List of subjects and faculty members in charge, etc.

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6 List of subjects and faculty members in charge, etc.

6-1. List of subjects and faculty members in charge in academic year 2018

List of subjects and faculty members in charge for the Graduate School of Science and Technology in academic year 2018 (Master's Course)

Category	Subject name	Type	Subject Number	Class Code	Number of credit	Responsible person	Main	Sub	Faculty member in charge	Class Period		Total number of classes	English Subject	Remarks
										Start	End			
General Subjects	Techonology and Professional Ethics	L	1001	A	1	Yasumasa Bessho	BS	—	Yasumasa Bessho, Junya kato, Masahiro Akiyama, (Masataka Watanabe)	5/9	5/17	15		
	Techonology and Professional Ethics	L	1001	B	1	(Shushi Ueda)	IS	—	(Shushi Ueda)	6/5	7/24	15		
	Techonology and Professional Ethics	L	1001	C	1	(Mitsui Hitoshi)	MS	—	(Mitsui Hitoshi)	6/5	7/24	15		
	Techonology and Professional Ethics	L	1001	D	1	(Takahashi Kenji)	MS	—	(Takahashi Kenji)	6/5	7/24	15		
	Techonology and Professional Ethics	L	1001	E	1	(Mitsui Hitoshi)	MS	—	(Mitsui Hitoshi)	10/5	11/30	15		
	Techonology and Professional Ethics	L	1001	F	1	(Shushi Ueda)	IS	—	(Shushi Ueda)	10/5	11/30	15	○	
	Philosophy of Science	L	1002	A	1	(Hisashi Nakao)	IS	—	(Hisashi Nakao)	9/18	9/28	15		
	Science Communication	L	1003	A	1	Yasumasa Bessho	BS	—	Yasumasa Bessho	11/1	11/22	15		Collaboration with Social Dialogue Skills Laboratory
	Intellectual Property Right	L	1004	A	1	Kozo Kubo	IRI (IS)	—	Kozo Kubo	9/5	9/14	15		
	Intellectual Property Right	L	1004	B	1	Kozo Kubo	IRI (IS)	—	Kozo Kubo	10/15	12/3	15	○	
	Global Entrepreneur I	L	1005	A	1	Shoichi Mitsui	IS	—	Shoichi Mitsui	Intensive	Intensive	15		Out of Campus
	Global Entrepreneur II	L	1006	A	1	Shoichi Mitsui	IS	—	Shoichi Mitsui	Intensive	Intensive	15		Out of Campus
	Global Entrepreneur III	L	1007	A	1	Shoichi Mitsui	IS	—	Shoichi Mitsui	Intensive	Intensive	15		
	Global Entrepreneur IV	L	1008	A	1	Shoichi Mitsui	IS	—	Shoichi Mitsui	Intensive	Intensive	15		
	Global Entrepreneur V	L	1009	A	1	Hajimu Iida	IS	—	Hajimu Iida, Takahiro Miyashita, Masafumi Nakagawa	Intensive	Intensive	15		
	Professional Communication I	L	1010	A	1	(David Sell)	IS	—	(David Sell)	6/4	7/30	15	○	
	Professional Communication I	L	1010	B	1	Mike Barker	IS	—	Mike Barker	6/6	8/1	15	○	
	Professional Communication I	L	1010	C	1	Mike Barker	IS	—	Mike Barker	6/1	8/3	15	○	
	Professional Communication I	L	1010	D	1	Paul McAleese	BS	—	Paul McAleese	12/12	2/6	15	○	
	Professional Communication I	L	1010	E	1	Paul McAleese	BS	—	Paul McAleese	12/11	2/5	15	○	
	Professional Communication I	L	1010	F	1	Paul McAleese	BS	—	Paul McAleese	12/6	2/7	15	○	
	Professional Communication I	L	1010	G	1	Leigh McDowell	MS	—	Leigh McDowell	6/4	7/30	15	○	
	Professional Communication I	L	1010	H	1	Leigh McDowell	MS	—	Leigh McDowell	6/7	8/2	15	○	
	Professional Communication I	L	1010	I	1	Leigh McDowell	MS	—	Leigh McDowell	6/1	8/3	15	○	
	Professional Communication II	L	1011	A	1	(David Sell)	IS	—	(David Sell)	10/15	12/3	15	○	
	Professional Communication II	L	1011	B	1	Mike Barker	IS	—	Mike Barker	10/9	12/4	15	○	
	Professional Communication II	L	1011	C	1	Mike Barker	IS	—	Mike Barker	10/4	11/29	15	○	
	Professional Communication II	L	1011	D	1	Mike Barker	IS	—	Mike Barker	10/10	12/5	15	○	
	Professional Communication II	L	1011	E	1	Paul McAleese	BS	—	Paul McAleese	10/9	12/4	15	○	
	Professional Communication II	L	1011	F	1	Paul McAleese	BS	—	Paul McAleese	10/4	11/29	15	○	
	Professional Communication II	L	1011	G	1	Paul McAleese	BS	—	Paul McAleese	10/10	12/5	15	○	
	Professional Communication II	L	1011	H	1	Leigh McDowell	MS	—	Leigh McDowell	10/4	11/29	15	○	
	Professional Communication II	L	1011	I	1	Leigh McDowell	MS	—	Leigh McDowell	10/10	12/5	15	○	
	Academic Discussion	L	1012	A	1	Mike Barker	IS	—	Mike Barker	12/3	2/4	15	○	
	Academic Discussion	L	1012	B	1	Paul McAleese	BS	—	Paul McAleese	1/8	1/31	15	○	
	Academic Discussion	L	1012	C	1	Leigh McDowell	MS	—	Leigh McDowell	1/11	2/1	15	○	
	Research Presentation	L	1013	A	1	Mike Barker	IS	—	Mike Barker	11/5	1/7	15	○	
	Research Presentation	L	1013	B	1	(David Sell)	IS	—	(David Sell)	11/2	11/30	15	○	
	Research Presentation	L	1013	C	1	Paul McAleese	BS	—	Paul McAleese	11/1	11/27	15	○	
Research Writing	L	1014	A	1	Leigh McDowell	MS	—	Leigh McDowell	11/2	11/30	15	○		
Research Writing	L	1014	B	1	(Yukiko Nakayama)	MS	—	(Yukiko Nakayama)	11/7	11/28	15	○		
Research Writing	L	1014	C	1	Mike Barker	IS	—	Mike Barker	11/2	1/11	15	○		
Advanced Research Writing	L	1015	A	1	Leigh McDowell	MS	—	Leigh McDowell	9/5	9/28	15	○		
Advanced Research Writing	L	1015	B	1	(Yukiko Nakayama)	MS	—	(Yukiko Nakayama)	9/7	9/28	15	○		
Japanese Culture	L	1016	A	2	(Adarsh Bala Sharma)	IS	—	(Adarsh Bala Sharma)	11/1	2/21	30	○	International students have priority. Fieldwork	
Japanese Course I	L	1017	A	2	(Mikiko Iwasaki)	MS	—	(Mikiko Iwasaki)(Noriko Kuni)	11/6	12/25	30		For international students	
Japanese Course I	L	1017	B	2	(Noriko Nakao)	BS	—	(Noriko Nakao)	11/6	3/12	30		For international students	
Japanese Course II	L	1018	A	2	(Masako Hashimoto)	BS	—	(Masako Hashimoto)	11/6	3/12	30		For international students	
Introduction Subjects	Introduction to Information Science and Engineering	L	2001	A	1	Program Director	IS	—	Yasuhiko Nakashima, Keichi Yasumoto, Yutaka Arakawa, Michiko Inoue, Fukuhito Oshita, Yuji Matsumoto, Masashi Shimizu, Hiroaki Shindo	4/12	5/7	15		
	Introduction to Information Science and Engineering	L	2001	B	1	Program Director	IS	—	Yasuhiko Nakashima, Keichi Yasumoto, Yutaka Arakawa, Michiko Inoue, Fukuhito Oshita, Yuji Matsumoto, Hiroaki Shindo	10/4	10/30	15	○	
	Introduction to Computational Biology	L	2002	A	1	Program Director	BS	IS	Keichi Yasumoto, Minoru Okada, Yasuhiro Makiyama, Tsukasa Ogasawara, Kenji Sugimoto, Kazuhiro Iwata, Yoshinobu Sato, Shigehiko Kanaya, Keiji Nakajima, Toshiro Ito, Yusuke Saijo, Satoko Yoshida, Junya Kato, Shiro Suetsumu, Hirotda Mori, Kazuhiko Shiozaki, Naoyuki Inagaki, Yuichi Sakamura, Yasumasa Bessho	4/13	5/8	15		
	Introduction to Computational Biology	L	2002	B	1	Program Director	BS	IS	Yasuhiko Makiyama, Tsukasa Ogasawara, Kenji Sugimoto, Kazuhiro Iwata, Yoshinobu Sato, Shigehiko Kanaya, Keiji Nakajima, Toshiro Ito, Yusuke Saijo, Satoko Yoshida, Junya Kato, Shiro Suetsumu, Hirotda Mori, Kazuhiko Shiozaki, Naoyuki Inagaki, Yuichi Sakamura, Yasumasa Bessho	10/5	10/31	15	○	
	Introduction to Biological Science	L	2003	A	1	Program Director	BS	—	Hisaji Maki, Yasumasa Ishida, Hiroshi Itoh	4/12	5/7	15		
	Introduction to Biological Science	L	2003	B	1	Program Director	BS	—	Hisaji Maki, Yasumasa Ishida, Hiroshi Itoh	10/4	10/30	15	○	
	Introduction to Bionanotechnology	L	2004	A	1	Program Director	MS	BS	Takashi Hashimoto, Taku Demura, Masaaki Umeda, Toshiro Ito, Hiroshi Itoh, Junya Kato, Taro Kawai, Shiro Suetsumu, Noriko Sasaki, Ayako Isohama, Kazuhiko Shiozaki, Hiroshi Takagi, Toshio Hakoshima, Tomoya Takazaki, Naoyuki Inagaki, Hiromu Kamakubo, Shun Hirota, Tsuboshi Ando, Hirobaru Ajo	4/13	5/8	15		
	Introduction to Bionanotechnology	L	2004	B	1	Program Director	MS	BS	Takashi Hashimoto, Taku Demura, Masaaki Umeda, Toshiro Ito, Hiroshi Itoh, Junya Kato, Taro Kawai, Shiro Suetsumu, Noriko Sasaki, Ayako Isohama, Kazuhiko Shiozaki, Hiroshi Takagi, Toshio Hakoshima, Tomoya Takazaki, Naoyuki Inagaki, Hiromu Kamakubo, Shun Hirota, Tsuboshi Ando, Hirobaru Ajo	10/4	10/30	15	○	
	Introduction to Materials Science and Engineering	L	2005	A	1	Program Director	MS	—	Hiroaki Katsuki, Naoki Aratani, Tsuboshi Kawai, Hiroshi Daimon, Masakazu Nakamura, Michiya Fujiki, Yoichiro Hosokawa, Takayuki Yamaguchi, Hiroko Yamada, Nobuyoshi Hosono, Tsumoru Morimoto, Hidetaki Arai, Yasuyuki Agari, Takahiro Honda, Katsunori Yogo	4/12	5/7	15		

List of subjects and faculty members in charge in academic year 2018

Category	Subject name	Type	Subject Number	Class Code	Number of credit	Responsible person	Main	Sub	Faculty member in charge	Class Period		Total number of classes	English Subject	Remarks	
										Start	End				
	Introduction to Materials Science and Engineering	L	2005	B	1	Program Director	MS		Hiroaki Katsuki, Naoki Aratani, Tsuyoshi Kawai, Hiroshi Daimon, Masakazu Nakamura, Michiya Fujiki, Yoichiro Hosokawa, Takayuki Yanagida, Hiroko Yamada, Nobuyoshi Hosoto, Tsumoru Morimoto, Hideaki Arai, Yasuyuki Agari, Takahiro Honda, Kazunori Yogo	10/5	10/31	15			
	Introduction to Intelligent Cyber-Physical Systems	L	2006	A	1	Program Director	IS	MS	Yukiharu Uraoka, Jun Ohta, Takashi Tokuda, Yasuaki Ishikawa, Keishi Kitamura, Keichi Yasumoto, Yuchi Hayashi, Minoru Okada, Kenji Sugimoto, Takamitsu Masubara	4/12	5/7	15			
	Introduction to Intelligent Cyber-Physical Systems	L	2006	B	1	Program Director	IS	MS	Yukiharu Uraoka, Jun Ohta, Takashi Tokuda, Yasuaki Ishikawa, Keishi Kitamura, Keichi Yasumoto, Yuchi Hayashi, Minoru Okada, Kenji Sugimoto	10/4	10/30	15			
	Introduction to Data Science	L	2007	A	1	Program Director	DSC (IS)	MS	Satoshi Nakamura, Hirokata Mori, Yukiharu Uraoka, Kimito Funatsu, Shigehiko Kanaya, Eiji Aramaki	4/13	5/8	15			
	Introduction to Data Science	L	2007	B	1	Program Director	DSC (IS)	BS MS	Satoshi Nakamura, Hirokata Mori, Yukiharu Uraoka, Kimito Funatsu, Shigehiko Kanaya, Eiji Aramaki	10/5	10/31	15			
Basic Subjects	Formal Language Theory	L	3001	A	1	Minoru Ito	IS		Minoru Ito	5/10	5/30	15			
	Programming Course	P	3002	A	1	Kenichi Matsumoto	IS		Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hideaki Hata	5/9	5/17	15			
	Principles of Signal Processing	L	3003	A	1	Hirokazu Kato	IS		Hirokazu Kato, Takafumi Taketomi	5/9	5/29	15			
	Applied Analysis	L	3004	A	1	Yoshinobu Sato	IS		Yoshinobu Sato	5/9	5/29	15			
	Data Engineering	L	3005	A	1	Yu Suzuki	IS		Yu Suzuki, Koichiro Yoshino	5/10	5/30	15			
	Machine Learning	L	3006	A	1	Kazushi Ikeda	IS			5/10	5/30	15			
	Optics	L	3007	A	1	Hirokazu Kato	IS		Hirokazu Kato	5/10	5/30	15			
	High Performance Computing Platforms	L	3008	A	1	Yasuhiko Nakashima	IS		Yasuhiko Nakashima, Takashi Nakada	5/10	5/30	15			
	Software Design	L	3009	A	1	Hajimu Iida	IS		Hajimu Iida, Eunjong Choi	5/10	5/24	15			
	Artificial Intelligence	L	3010	A	1	Masashi Shimbo	IS		Masashi Shimbo, Hiroshi Noji	5/9	5/29	15			
	Cell Biology	L	3011	A	1	Yasumasa Bessho	BS		Yasumasa Bessho, Taku Demura, Hiroshi Takagi, Tsubasa Shoji	5/9	5/17	15			
	Cell Biology	L	3011	B	1	Yasumasa Bessho	BS		Yasumasa Bessho, Taku Demura, Hiroshi Takagi, Tsubasa Shoji	5/9	5/17	15			
	Cell Biology	L	3011	C	1	Yasumasa Bessho	BS		Yasumasa Bessho, Taku Demura, Hiroshi Takagi, Tsubasa Shoji	10/4	10/15	15		International students have priority	
	Molecular Biology	L	3012	A	1	Masahiro Akiyama	BS		Masahiro Akiyama, Toshiro Ito, Ko Kato, (Reiko Shinkura)	5/10	5/18	15			
	Molecular Biology	L	3012	B	1	Masahiro Akiyama	BS		Masahiro Akiyama, Toshiro Ito, Ko Kato, (Reiko Shinkura)	5/10	5/18	15			
	Molecular Biology	L	3012	C	1	Masahiro Akiyama	BS		Masahiro Akiyama, Toshiro Ito, Ko Kato, (Reiko Shinkura)	10/5	10/19	15		International students have priority	
	Cell Membranes and Transport	L	3013	A	1	Tomoya Tsukazaki	BS		Tomoya Tsukazaki, Shoji Komai, Shiro Suetsugu, Yukio Kimata	5/21	5/29	15			
	Cell Membranes and Transport	L	3013	B	1	Tomoya Tsukazaki	BS		Tomoya Tsukazaki, Shoji Komai, Shiro Suetsugu, Yukio Kimata	5/21	5/29	15			
	Cell Membranes and Transport	L	3013	C	1	Tomoya Tsukazaki	BS		Tomoya Tsukazaki, Shoji Komai, Shiro Suetsugu, Yukio Kimata	10/22	10/30	15		International students have priority	
	Cell Signaling	L	3014	A	1	Kazuhiro Shiozaki	BS		Kazuhiro Shiozaki, Yusuke Saijo, Satoko Yoshida, Takaaki Mastui	5/22	5/30	15			
	Cell Signaling	L	3014	B	1	Kazuhiro Shiozaki	BS		Kazuhiro Shiozaki, Yusuke Saijo, Satoko Yoshida, Takaaki Mastui	5/22	5/30	15			
	Cell Signaling	L	3014	C	1	Kazuhiro Shiozaki	BS		Kazuhiro Shiozaki, Yusuke Saijo, Satoko Yoshida, Takaaki Mastui	10/23	10/31	15		International students have priority	
	Microbial Science	L	3015	A	1	Hirokata Mori	DSC (BS)		Hirokata Mori, Hisaji Maki, Masahiro Akiyama, Kazuhiro Shiozaki, Hiroshi Takagi, Tomoya Tsukazaki, Yukio Kimata	5/10	5/30	15			
	Plant Science	L	3016	A	1	Toshiro Ito	BS		Toshiro Ito, Takashi Hashimoto, Tsubasa Shoji, Keiji Nakajima, Taku Demura, Masaaki Umeda, Yusuke Saijo, Satoko Yoshida	5/10	5/30	15			
	Biomedical Science	L	3017	A	1	Shiro Suetsugu	BS		Shiro Suetsugu, Taro Kawai, Noriaki Sasai, Shoji Komai, Yasumasa Bessho, Ayako Isotani, Takaaki Mastui, Toshio Hakoshima	5/10	5/30	15			
	Cytoskeleton and Cell Cycle	L	3018	A	1	Naoyuki Inagaki	BS		Masaaki Umeda, Junya Kato, Takashi Hashimoto, Naoyuki Inagaki	6/4	6/27	15			
	Cytoskeleton and Cell Cycle	L	3018	B	1	Naoyuki Inagaki	BS		Masaaki Umeda, Junya Kato, Takashi Hashimoto, Naoyuki Inagaki	6/4	6/27	15			
	Cytoskeleton and Cell Cycle	L	3018	C	1	Naoyuki Inagaki	BS		Masaaki Umeda, Junya Kato, Takashi Hashimoto, Naoyuki Inagaki	11/1	11/9	15		International students have priority	
	Genetics and Stem Cell Biology	L	3019	A	1	Keiji Nakajima	BS		Keiji Nakajima, Yasumasa Ishida, Ayako Isotani, Noriaki Sasai	6/4	6/27	15			
	Genetics and Stem Cell Biology	L	3019	B	1	Keiji Nakajima	BS		Keiji Nakajima, Yasumasa Ishida, Ayako Isotani, Noriaki Sasai	6/4	6/27	15			
	Genetics and Stem Cell Biology	L	3019	C	1	Keiji Nakajima	BS		Keiji Nakajima, Yasumasa Ishida, Ayako Isotani, Noriaki Sasai	11/2	11/12	15		International students have priority	
	Gene Cloning and DNA Analysis	L	3020	A	1	Yasumasa Bessho	BS		Yasumasa Bessho, Masahiro Akiyama, Yukio Kimata	(Check the Online Syllabus)		15			For international students
	Mathematical Analyses for Materials Science	P	3021	A	1	Satoshi Tomita	MS		Satoshi Tomita, Sakura Takeda, Toshihiko Noda, Mutsumori Uenuma, Yoichi Yamazaki, Satoshi Nagao, Mamoru Fuji	5/9	5/11	15			
	Quantum Mechanics	L	3022	A	1	Masakazu Nakamura	MS		Masakazu Nakamura, Ken Hattori	5/10	5/16	15			
	Quantum Mechanics	L	3022	B	1	Masakazu Nakamura	MS		Masakazu Nakamura, Ken Hattori	10/4	10/11	15		International students have priority	
	Core Quantum Mechanics II	L	3023	A	1	Yoichiro Hosokawa	MS		Yoichiro Hosokawa, Ken Hattori, Nobuyoshi Hosoto	5/18	5/24	15			
	Core Quantum Mechanics II	L	3023	B	1	Yoichiro Hosokawa	MS		Yoichiro Hosokawa, Ken Hattori, Nobuyoshi Hosoto	10/15	10/29	15		International students have priority	
	Core Physical Chemistry I	L	3024	A	1	Tsuyoshi Kawai	MS		Tsuyoshi Kawai, Hisao Yanagi, Hironari Kamikubo	5/15	5/21	15			
	Core Physical Chemistry I	L	3024	B	1	Tsuyoshi Kawai	MS		Tsuyoshi Kawai, Hisao Yanagi, Hironari Kamikubo	10/10	10/22	15		International students have priority	
	Physical Chemistry	L	3025	A	1	Hisao Yanagi	MS		Hisao Yanagi, Naoki Aratani, Hiroaki Benten	5/17	5/30	15			
	Physical Chemistry	L	3025	B	1	Hisao Yanagi	MS		Hisao Yanagi, Naoki Aratani, Hiroaki Benten	10/24	10/31	15		International students have priority	
	Core Solid State Physics I	L	3026	A	1	Takayuki Yanagida	MS		Takayuki Yanagida, Noriaki Kawaguchi	5/25	5/30	15			
	Core Solid State Physics I	L	3026	B	1	Takayuki Yanagida	MS		Takayuki Yanagida, Noriaki Kawaguchi	11/1	11/6	15		International students have priority	
	Core Solid State Physics II	L	3027	A	1	Hiroshi Daimon	MS		Hiroshi Daimon, Hiroyuki Katsuki, Nobuyoshi Hosoto	6/4	6/27	15			
Core Solid State Physics II	L	3027	B	1	Hiroshi Daimon	MS		Hiroshi Daimon, Hiroyuki Katsuki, Nobuyoshi Hosoto	11/7	11/12	15		International students have priority		
Core Molecular Science I	L	3028	A	1	Michiya Fujiki	MS		Michiya Fujiki, Takuya Nakashima, Tsumoru Morimoto	5/25	5/30	15				
Core Molecular Science I	L	3028	B	1	Michiya Fujiki	MS		Michiya Fujiki, Takuya Nakashima, Tsumoru Morimoto	11/1	11/6	15		International students have priority		
Core Molecular Science II	L	3029	A	1	Shun Hirota	MS		Shun Hirota, Hiroko Yamada, Takashi Matsuo	6/4	6/27	15				
Core Molecular Science II	L	3029	B	1	Shun Hirota	MS		Shun Hirota, Hiroko Yamada, Takashi Matsuo	11/7	11/12	15		International students have priority		
Biomaterials Chemistry	L	3030	A	1	Hironari Kamikubo	MS		Hironari Kamikubo, Takashi Matsuo, Tsuyoshi Ando	6/4	6/27	15		Implemented in English every other year		
Distributed Computing	L	4001	A	1	Michiko Inoue	IS		Michiko Inoue, Fukuhiro Oshita	6/5	6/28	15				
Advanced Algorithm Design	L	4002	A	1	Michiko Inoue	IS		Michiko Inoue, Fukuhiro Oshita	6/5	6/28	15				
Ubiquitous Systems	L	4003	A	1	Keichi Yasumoto	IS		Keichi Yasumoto, Yutaka Arakawa	11/1	11/21	15				
Mobile Computing	L	4004	A	1	Naoki Shibata	IS		Naoki Shibata	6/5	6/28	15				
Virtual Systems Infrastructure	L	4005	A	1	Kohei Ichikawa	IS		Kohei Ichikawa	12/7	2/1	15				
Software Engineering	L	4006	A	1	Kenichi Matsumoto	IS		Kenichi Matsumoto, Takashi Ishio, Akinori Ihara, Hideaki Hata	6/4	6/27	15				
Internet Engineering	L	4007	A	1	Yuki Kadobayashi	IS		Yuki Kadobayashi, Yuzo Taenaka, Doudou Fall	6/29	7/26	15				
Computer Network	L	4008	A	1	Kazutoshi Fujikawa	IS		Kazutoshi Fujikawa, (Atsuo Inomata), Ismail Arai, Masatoshi Kakuchi	10/4	10/30	15				
Ambient Intelligence	L	4009	A	1	Kambara Masayuki	IS		Kambara Masayuki, (Norihito Hagita)	11/2	11/22	15				
Natural Language Processing	L	4010	A	1	Yuji Matsumoto	IS		Yuji Matsumoto, (Hideki Kashioka), Hiroyuki Shindo	7/2	7/27	15				
Virtual Reality	L	4011	A	1	Kiyoshi Kiyokawa	IS		Kiyoshi Kiyokawa	6/4	6/27	15		Implemented in English every other year		
Computer Vision	L	4012	A	1	Yasuhiro Mukaigawa	IS		Yasuhiro Mukaigawa	7/2	7/27	15				
Computer Graphics	L	4013	A	1	Takaya Funatomi	IS		Takaya Funatomi, Hiroyuki Kubo, Kenichiro Tanaka	10/4	10/30	15				

### VI List of subjects and faculty members in charge, etc.

Category	Subject name	Type	Subject Number	Class Code	Number of credit	Responsible person	Main	Sub	Faculty member in charge		Class Prioed		Total number of class es	Engli sh Subj ect	Remarks	
											Start	End				
Specialized Subjects	Media Information Processing	L	4014	A	1	Nobuchika Sakata	IS	—	Nobuchika Sakata		6/29	7/26	15			
	Wireless Communication Systems	L	4015	A	1	Minoru Okada	IS	—	Minoru Okada, Takeshi Higashino, Yafei Hou, Duong Quang Thang		10/5	10/31	15			
	Signal Detection Theory	L	4016	A	1	Minoru Okada	IS	—	Minoru Okada, Takeshi Higashino, Yafei Hou, Duong Quang Thang		11/2	11/22	15	○		
	Human Computer Interaction	L	4017	A	1	Christian Sandor	IS	—	Christian Sandor, Alexander Plopski		6/29	7/26	15	○		
	Pattern Recognition	L	4018	A	1	Takuya Funatomi	IS	—	Takuya Funatomi, Kambara Masayuki		6/29	7/26	15			
	Social System Theory	L	4019	A	1	Masahiro Sasabe	IS	—	Masahiro Sasabe		7/2	7/27	15			
	Machine Learning and Intelligent Control	L	4020	A	1	Takamitsu Matsubara	IS	—	Takamitsu Matsubara		7/2	7/27	15	○		
	Model-based Control	L	4021	A	1	Kenji Sugimoto	IS	—	Kenji Sugimoto		10/5	10/31	15			
	Human Robot Informatics	L	4022	A	1	Tsukasa Ogasawara	IS	—	Tsukasa Ogasawara, Jun Takamatsu, (Yoshio Matsumoto), (Mitsunori Tada), (Akihiko Murai)		11/1	11/21	15	○		
	Mathematical Modeling	L	4023	A	1	Kazushi Ikeda	IS	—	Kazushi Ikeda, Hiroaki Sasaki		1/8	2/7	15			
	Systems Biology	L	4024	A	1	Shigehiko Kanaya	IS	—	Shigehiko KanayaP, MD. ALTAF-UL-AMIN		10/5	10/31	15	○		
	Data Mining	L	4025	A	1	MD. ALTAF-UL-AMIN	IS	—	MD. ALTAF-UL-AMIN		6/4	6/27	15	○		
	Medical Imaging Analysis	L	4026	A	1	Yoshinobu Sato	IS	—	Yoshinobu Sato		6/29	7/26	15	○		
	Biomedical Media Informatics	L	4027	A	1	Yoshito Otake	IS	—	Yoshito Otake		7/2	7/27	15			
	Data Science	L	4028	A	2	Satoshi Nakamura	DSC (IS)	—	Satoshi Nakamura, Kimoto Funatsu, Altaf-Ul-Amin, Naonori Ono, Yu Suzuki, Katsuyuki Kunida, Koichiro Yoshino, Hiroki Tanaka, (Michiaki Iwazume), (Tetsuro Takahashi)		11/1	11/21	30	○		
	Special Lecture in Information Science A	L	4029	A	1	Minoru Okada	IS	—	Renyan Zhang, Hirohiko Sawa, Hideo Hata, Eunjong Choi, Hiroaki Shindo, Nobuchika Sakata, Kenchiro Tanaka, Masaki Ogura, Yunsu Zhang, Hiroaki Sasaki		1/4	1/9	15	○		
	Special Lecture in Information Science B	L	4030	A	1	Minoru Okada	IS	—	(A and B to be held every other year)		-	-	15	○		
	Special Lecture in Information Science C	L	4031	A	1	Minoru Okada	IS	—	Renyan Zhang, Hirohiko Sawa, Hideo Hata, Eunjong Choi, Hiroaki Shindo, Nobuchika Sakata, Kenchiro Tanaka, Masaki Ogura, Yunsu Zhang, Hiroaki Sasaki		1/10	1/16	15	○		
	Special Lecture in Information Science D	L	4032	A	1	Minoru Okada	IS	—	(C and D to be held every other year)		-	-	15	○		
	Speech Processing	L	4033	A	1	Satoshi Nakamura	DSC (IS)	—	Satoshi Nakamura, Sakriani Sakti, Koichiro Yoshino, (Shimosuke Takamichi)		11/2	11/22	15			
	Sequential Data Modeling	L	4034	A	1	Katsuhito Sudoh	IS	—	Katsuhito Sudoh, Sakriani Sakti, Koichiro Yoshino		10/4	10/30	15	○		
	Robotics	L	4035	A	1	Tsukasa Ogasawara	IS	—	Tsukasa Ogasawara, Jun Takamatsu		10/4	10/30	15			
	Information Security & Our Society	L	4036	A	1	Youki Kadobayashi	IS	—	Youki Kadobayashi, Yuzo Taenaka, (Jun Murai)		9/27	11/15	15	○		
	Information Theory	L	4037	A	1	(Yuichi Kaji)	IS	—	(Yuichi Kaji)		6/8	8/3	15			
	Hardware Security	L	4038	A	1	Yuichi Hayashi	IS	—	Yuichi Hayashi, Daisuke Fujimoto		11/1	11/21	15			
	Coding Theory	L	4039	A	1	Minoru Okada	IS	—	Minoru Okada, Youki Kadobayashi		10/4	10/30	15	○		
	Stochastic Processes	L	4040	A	1	Shoji Kasahara	IS	—	Shoji Kasahara		10/5	10/31	15			
	Computational Neuroscience	L	4041	A	1	Junichiro Yoshimoto	IS	—	Junichiro Yoshimoto, Yuichi Sakumura		10/5	10/31	15			
	Lecture of Information Security Management Literacy I	L	4042	A	1	Kazutoshi Fujikawa	IS	—	(Hideki Sunahara), Kazutoshi Fujikawa, Youki Kadobayashi, (Atsuo Inomata), Yuichi Hayashi		5/25	7/20	15		(Osaka University Nakanoshima Center)	
	Lecture of Information Security Management Literacy II	L	4043	A	1	Kazutoshi Fujikawa	IS	—	(Hideki Sunahara), Kazutoshi Fujikawa, Youki Kadobayashi, (Atsuo Inomata), Yuichi Hayashi		10/19	1/18	15		(Osaka University Nakanoshima Center)	
	Exercise for Information Security A	P	4044	A	1	Kazutoshi Fujikawa	IS	—	Kazutoshi Fujikawa, Youki Kadobayashi, Yuichi Hayashi		(Check the Online Syllabus)			15		
	Exercise for Information Security B	P	4045	A	1	Kazutoshi Fujikawa	IS	—	Kazutoshi Fujikawa, Youki Kadobayashi, Yuichi Hayashi, (Naofumi Homma)		(Check the Online Syllabus)			15		
	Exercise for Information Security C	P	4046	A	1	Kazutoshi Fujikawa	IS	—	Kazutoshi Fujikawa, Youki Kadobayashi, Yuichi Hayashi		(Check the Online Syllabus)			15		
	Mathematics for Optimization	L	4047	A	1	Kenji Sugimoto	IS	—	Kenji Sugimoto		6/4	6/27	15			
	Data Analysis	L	4048	A	1	Shigehiko Kanaya	IS	—	Shigehiko Kanaya		6/4	6/27	15			
	Applied Life Sciences · Microbial Science	L	4049	A	1	Hirotda Mori	DSC (BS)	—	Hirotda Mori, Hisaji Maki, Masahiro Akiyama, Kazuhiro Shiozaki, Hiroshi Takagi, Tomoya Tsukazaki, Yukio Kimata		10/4	10/30	15			
	Applied Life Sciences · Plant Science	L	4050	A	1	Yusuke Saijo	BS	—	Toshiro Ito, Takashi Hashimoto, Keiji Nakajima, Taku Demura, Ko Kato, Masaaki Umeda, Yusuke Saijo, Satoko Yoshida, Takayuki Toge		10/4	10/30	15			
	Applied Life Sciences · Biomedical Science	L	4051	A	1	Shiro Suetsugu	BS	—	Shiro Suetsugu, Hiroshi Itoh, Yasumasa Ishida, Junya Kato, Taro Kawai, Reiko Shinkura, Naoyuki Inagaki, Ayako Isotani		10/4	10/30	15			
	Development of Bioscience into Industry I	L	4052	A	1	Ko Kato	BS	—	Ko Kato, Hiroshi Takagi, Tsubasa Shoji, (Reiko Shinkura)		10/5	10/31	15			
	Development of Bioscience into Industry II	L	4053	A	1	Hiroshi Takagi	BS	—	K-ryoji Yamaguchi(DAIRICH SANRYO), Takashi Senohara(AZEL), Gen Niwatani(ABNOMOTO), Tomoharu Fujita(Chusei Laboratory), Yoji Kitagawa(Lenther), Masaki Shoji(Visiting Professor), Toshihiko Ashikari(SUNTORY), Takashi Marukawa(TEIEN)		9/4	9/28	15			
	Advanced Lecture in Developmental Biology	L	4054	A	1	Yasumasa Bessho	BS	—	Yasumasa Bessho		(Check the Online Syllabus)			15		Collaboration with Riken(CDB)
	Advanced Techniques in Bioscience	L	4055	A	1	Yasumasa Bessho	BS	—	Yasumasa Bessho, Hirotda Mori, Yasumasa Ishida, Masahiro Akiyama		6/5	6/28	15	○		
	Plant Developmental Physiology	L	4056	A	1	Satoko Yoshida	BS	—	Toshiro Ito, Takashi Hashimoto, Keiji Nakajima, Taku Demura, Masaaki Umeda, Yusuke Saijo, Satoko Yoshida, Takayuki Toge		6/29	7/26	15			
	Developmental Biology of Animals	L	4057	A	1	Noriaki Sasai	BS	—	Noriaki Sasai, Takaaki Matsui, Naoyuki Inagaki, Ayako Isotani, Shoji Komai		6/5	6/28	15			
	Pharmacology and Pathological Chemistry	L	4058	A	1	Hiroshi Itoh	BS	—	Hiroshi Itoh, Toshio Hakoshima, Yasumasa Bessho, Kazuhiro Shiozaki, Yukio Kimata, Tomoya Tsukazaki		10/4	10/30	15			
	Immunology	L	4059	A	1	Taro Kawai	BS	—	Taro Kawai, Yasumasa Ishida, Yusuke Saijo, (Reiko Shinkura)		10/5	10/31	15			
	The Biology of Genome and Cancer	L	4060	A	1	Junya Kato	BS	—	Junya Kato, Hirotda Mori, Shiro Suetsugu, Hsaji Maki, Masahiro Akiyama		11/1	11/21	15			
	Biological Interactions	L	4061	A	1	Satoko Yoshida	BS	—	Satoko Yoshida, (Reiko Shinkura), Yusuke Saijo		7/2	7/27	15			
	International Forefront in Bioscience A	L	4062	A	1	Kazuhiro Shiozaki	BS	—	Visiting Lecturer		(Check the Online Syllabus)			15	○	
	International Forefront in Bioscience B	L	4063	A	1	Kazuhiro Shiozaki	BS	—	Visiting Lecturer		(Check the Online Syllabus)			15	○	
	Big data in Bioscience	L	4064	A	1	Hirotda Mori	DSC (BS)	—	Hirotda Mori		6/29	7/26	15	○		
	Advanced Topics in Biological Science	L	4065	A	1	Program Director	BS	—	(Assignment by Assistant Professor)		1/4	1/9	15	○		
	Electronic Properties and Atomic Structure of Solids and Surface Spectra	L	4066	A	1	Hiroshi Daimon	MS	—	Hiroshi Daimon, Ken Hattori, Nobuyoshi Hosoito		6/29	7/26	15		Implemented in English every other year	
	Photonics Special	L	4067	A	1	Jun Ohta	MS	—	Jun Ohta, Takayuki Yamagata, Takashi Tokuda, Noriaki Kawaguchi		6/29	7/20	15		Implemented in English every other year	
	Light and Information Devices Special	L	4068	A	1	Yoichiro Hosokawa	MS	—	Yoichiro Hosokawa, Yukiharuru Uraoka		7/2	7/27	15		Implemented in English every other year	
	Materials Science for Quantum Information and Energy Conversion	L	4069	A	1	Hisao Yanagi	MS	—	Hisao Yanagi, Masakazu Nakamura, Hiroaki Katsuki, Hiroaki Bente		7/2	7/27	15		Implemented in English every other year	
	Biomolecular Science	L	4070	A	1	Shun Hirota	MS	—	Hironari Kamikubo, Shun Hirota, Takashi Matsuo, Yoichi Yamaoaki, Yugo Hayashi		6/29	7/26	15		Implemented in English every other year	
	Advanced Synthetic Organic and Polymer Chemistry	L	4071	A	1	Kiyomi Kakiuchi	MS	—	Kiyomi Kakiuchi, Tsumoru Morimoto, Hiroharu Ajiro, Hiroki Tanimoto		6/29	7/26	15		Implemented in English every other year	
	Molecular Photo-science	L	4072	A	1	Hiroko Yamada	MS	—	Hiroko Yamada, Tsuyoshi Kawai, Takuya Nakashima, Naoki Aratani		7/2	7/27	15		Implemented in English every other year	

List of subjects and faculty members in charge in academic year 2018

Category	Subject name	Type	Subject Number	Class Code	Number of credit	Responsible person	Main	Sub	Faculty member in charge	Class Period		Total number of classes	English Subject	Remarks
										Start	End			
	Polymer Chemistry	L	4073	A	1	Tsuyoshi Ando	MS	—	Tsuyoshi Ando, Michiya Fujiki	7/2	7/27	15		Implemented in English every other year
	Materials Informatics	L	4074	A	1	Miho Hatanaka	MS	—	Miho Hatanaka	6/5	7/31	15		Implemented in English every other year
	Industrial Science and Technology Special	L	4075	A	1	Program Director	MS	—	Lecturers of Core Laboratories(Collaborative)	10/4	11/9	24		
	Materials Science Special A	L	4076	A	1	Program Director	MS	—	(Hidaki Hashimoto (1st-4th): Professor of Kwansai Gakuin University), (Satoshi Kawata (5th-8th): Professor Emeritus of Osaka University and Honorary Scientist of RIKEN)	10/9	11/7	15		Implemented in English every other year
	Materials Science Special B	L	4077	A	1	Program Director	MS	—	(Hiroyoshi Naito (1st-4th): Tokyo Medical and Dental University), (Takahiro Arakawa (5th-8th): Osaka Prefecture University)	11/2	11/19	15		Implemented in English every other year
	Materials Science Special C	L	4078	A	1	Program Director	MS	—	(Jun-ichi Yoshida(1st-2nd): Kyoto University), (Hiroshi Shimokubo(3rd-6th): Nagoya University), (Hiroyuki Uchida(7th-8th): University of Yamaguchi)	10/5	11/26	15		
	Materials Science Special D	L	4079	A	1	Program Director	MS	—	(Hiroyoshi Fujii(1st-4th): Nara Women's University), (Takayuki Uchihashi(5th-8th): Nagoya University)	10/23	11/15	15		
	Semiconductor Materials	L	4080	A	1	Yukiharu Uraoka	MS	—	Yukiharu Uraoka	6/4	6/27	15		Implemented in English every other year
	Optoelectronics	L	4081	A	1	Jun Ohta	MS	—	Jun Ohta, Takashi Tokuda	6/5	6/28	15		Implemented in English every other year
	Organic Synthesis and Polymer Science	L	4082	A	1	Hiroko Yamada	MS	—	Hiroko Yamada, Hiroharu Ajiro	6/5	6/28	15		Implemented in English every other year
Project Practice	P	4083	A	1	Supervisor	—	—	Different for respective themes			—			
PBL Subjects	Information Science and Engineering PBL I	P	5001	—	1	Program Director	IS	—	Yasuhiko Nakashima, Michiko Inoue, Keiichi Yasumoto, Minoru Ito, Kenichi Matsumoto, Hajimu Ida, Youki Kadoyayashi, Yuichi Hayashi, Kazutoshi Fujikawa, Yui Matsumoto, Satoshi Nakamura, Minoru Okada, Kiyoshi Kiyokawa, Hirokazu Kato, Yasuhiro Mukagawa, Norhiro Hagita, Eiji Aramaki, Tsukasa Ogasawara, Kenji Sugimoto, Shoji Kasahara, Kazushi Ikeda, Yoshinobu Sato, Shigehiko Kanaya, Takeo Kanade	Different for respective themes			—	
	Information Science and Engineering PBL II	P	5002	—	1	Program Director	IS	—	Yasuhiko Nakashima, Michiko Inoue, Keiichi Yasumoto, Minoru Ito, Kenichi Matsumoto, Hajimu Ida, Youki Kadoyayashi, Yuichi Hayashi, Kazutoshi Fujikawa, Yui Matsumoto, Satoshi Nakamura, Minoru Okada, Kiyoshi Kiyokawa, Hirokazu Kato, Yasuhiro Mukagawa, Norhiro Hagita, Eiji Aramaki, Tsukasa Ogasawara, Kenji Sugimoto, Shoji Kasahara, Kazushi Ikeda, Yoshinobu Sato, Shigehiko Kanaya, Takeo Kanade	Different for respective themes			—	
	Computational Biology PBL I	P	5003	—	1	Program Director	BS	IS	Yasunasa Bessho, Shigehiko Kanaya, Naoki Ono, MD.ALTA-UL-AMIN	Different for respective themes			—	
	Computational Biology PBL II	P	5004	—	1	Program Director	BS	IS	Yasunasa Bessho, Shigehiko Kanaya, Naoki Ono, MD.ALTA-UL-AMIN	Different for respective themes			—	
	Biological Sciences PBL I	P	5005	—	1	Program Director	BS	—	Yasunasa Bessho, etc	Different for respective themes			—	
	Biological Sciences PBL II	P	5006	—	1	Program Director	BS	—	Yasunasa Bessho, Kazuto Kato(Osaka University), Shinji Fushiki(Kyoto Prefectural University of Medicine), Masataka Watanabe(University of Tsukuba), etc.	Different for respective themes			—	
	Bionanotechnology PBL I	P	5007	—	1	Program Director	MS	BS	Masaaki Umeda, Hiroshi Itoh, Naoyuki Inagaki, Yuko Kimura, Hirotomo Takatsuka, Tetsuo Kobayashi, Michiaki Toriyama	Different for respective themes			—	
	Bionanotechnology PBL II	P	5008	—	1	Program Director	MS	BS	Hironari Kamakubo, Shun Hirota, Takashi Matsuo, Tsutomu Morimoto, Tsuyoshi Ando, Hiroharu Ajiro, Yoichi Yamazaki, Yugo Hayashi, Satoshi Nagao, Masaru Yamazaki, Heiki Tanimoto, Hironobu Hayashi	Different for respective themes			—	
	Materials Science and Engineering PBL I	P	5009	—	1	Program Director	MS	—	Masakazu Nakamura, Noriaki Kawaguchi, Ken Hattori, Nobuyoshi Hosoto, Jung Min-Chel, Go Okada, Naoki Kawano, Sakura Takeuchi, Mutsuka Taguchi, Hiroyuki Matsuda, Takahiro Jyo	Different for respective themes			—	
	Materials Science and Engineering PBL II	P	5010	—	1	Program Director	MS	—	Masakazu Nakamura, Naoki Aratani, Takuya Nakashima, Yasuyuki Agari, Yutaka Fujiwara, Masamichi Takahashi, Katsunori Yago, Kinjo Goto, Hidetaka Yamada, Hirotsuka Kojima, Masaharu Suzuki, Kayo Terada, Ryoshei Yasukuni, Yoshiaki Nonoguchi, Kazuma Yasuhara	Different for respective themes			—	
	Intelligent Cyber-Physical Systems PBL I	P	5011	—	1	Program Director	IS	MS	Yasuhiko Nakashima, Michiko Inoue, Keiichi Yasumoto, Minoru Ito, Kenichi Matsumoto, Hajimu Ida, Youki Kadoyayashi, Yuichi Hayashi, Kazutoshi Fujikawa, Minoru Okada, Kiyoshi Kiyokawa, Hirokazu Kato, Yasuhiro Mukagawa, Tsukasa Ogasawara, Kenji Sugimoto, Shoji Kasahara	Different for respective themes			—	
	Intelligent Cyber-Physical Systems PBL II	P	5012	—	1	Program Director	IS	MS	Yukiharu Uraoka, Jun Ohta, Takashi Tokuda, Yasuaki Ishikawa, Mutsumi Uemura, Mami Fuji, Bermardo Juan Pablo Sora, Kiyotaka Sasagawa, Toshikazu Noda, Makoto Harato, Hiroaki Benten, Satoshi Tomita, Keishi Kitamura, Masaaki Kanai, Shigeyoshi Horike	Different for respective themes			—	
	Data Science PBL I	P	5013	—	1	Program Director	DSC (IS)	BS MS	Satoshi Nakamura, Hirotada Mori, Yukiharu Uraoka, Naoki Ono, Yu Suzuki	12/3	12/11	15		
	Data Science PBL II	P	5014	—	1	Program Director	DSC (IS)	BS MS	Yukiharu Uraoka, Miho Hatanaka, Satoshi Nakamura, Hirotada Mori, Naoki Ono, Mutsumi Uemura, Mami Fuji, Bermardo Juan Pablo Sora	12/13	12/21	15		
Research-based Subjects	Seminar I	—	6001	—	1	Supervisor	—	—	Supervisor	Different for each laboratory			—	
	Seminar II	—	6002	—	1	Supervisor	—	—	Supervisor	Different for each laboratory			—	
	Colloquium A	—	6003	—	1	Supervisor	—	—	Supervisor	Different for respective themes			—	
	Colloquium B	—	6004	—	1	Supervisor	—	—	Supervisor	Different for respective themes			—	
	Research Experiments I	—	6005	—	2	Supervisor	—	—	Supervisor	Different for each laboratory			—	
	Research Experiments II	—	6006	—	2	Supervisor	—	—	Supervisor	Different for each laboratory			—	
	Research Thesis	—	6007	—	5	Supervisor	—	—	Supervisor	Different for each laboratory			—	

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

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

Schedule of subjects whose specific dates are not stated in class period will be posted on the electronic syllabus as details are decided.

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List of subjects and faculty members in charge for the Graduate School of Science and Technology in academic year 2018 (Doctral Course)

Category	Subject name	Type	Subject Number	Class Code	Number of credit	Responsible person	Main	Sub	Faculty member in charge	Class Period		Total number of classes	English Subject	Remarks
										Start	End			
Courses for research skills	Advanced English A	L	7001	A	1	Mike Barker	IS	—	Mike Barker	12/3	2/4	15	○	
	Advanced English A	L	7001	B	1	Paul McAleese	BS	—	Paul McAleese	1/8	1/31	15	○	
	Advanced English A	L	7001	C	1	Leigh McDowell	MS	—	Leigh McDowell	1/11	2/1	15	○	
	Advanced English B	L	7002	A	1	Mike Barker	IS	—	Mike Barker	11/5	1/7	15	○	
	Advanced English B	L	7002	B	1	(David Sell)	IS	—	(David Sell)	11/2	11/30	15	○	
	Advanced English B	L	7002	C	1	Paul McAleese	BS	—	Paul McAleese	11/1	11/27	15	○	
	Advanced English C	L	7003	A	1	Leigh McDowell	MS	—	Leigh McDowell	11/2	11/30	15	○	
	Advanced English C	L	7003	B	1	(Yukiko Nakayama)	MS	—	(Yukiko Nakayama)	11/7	11/28	15	○	
	Advanced English C	L	7003	C	1	Mike Barker	IS	—	Mike Barker	11/2	1/11	15	○	
	Advanced English D	L	7004	A	1	Paul McAleese	MS	—	Leigh McDowell	9/5	9/28	15	○	
	Advanced English D	L	7004	B	1	(Yukiko Nakayama)	MS	—	(Yukiko Nakayama)	9/7	9/28	15	○	
	Overseas English Training I	P	7005	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	Overseas English Training II	P	7006	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	Overseas English Training III	P	7007	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	International Training I	P	7008	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	International Training II	P	7009	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	International Training III	P	7010	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	Study Abroad I	P	7011	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	Study Abroad II	P	7012	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	Study Abroad III	P	7013	—	2	Supervisor	—	—	Supervisor	Different for respective themes		30	—	
	Seminar for International Workshop Plans	P	7014	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	Project Management I	P	7015	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	Project Management II	P	7016	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	Project Management III	P	7017	—	1	Supervisor	—	—	Supervisor	Different for respective themes		15	—	
	Special Lectures in Information Science and Technology	L	7018	A	1	Program Director	IS	—	(Check the Online Syllabus)	(Check the Online Syllabus)		15	○	
	Special Lectures in Computational Biology	L	7019	A	1	Program Director	BS	IS	(Check the Online Syllabus)	(Check the Online Syllabus)		15	○	
	Special Lectures in Biological Science	L	7020	A	1	Program Director	BS	—	Misato Otani, Yasukazu Nakahata, Daisuke Watanabe, Satoko Yoshida, Michinori Toriyama, Yoshiki Tanaka, Shunsuke Miyashima, Shunsuke Yuri	(Check the Online Syllabus)		15	○	
	Special Lectures in Bionanotechnology	L	7021	A	1	Program Director	MS	BS	Shun Hirota, Hironari Kamkubo, Tsuyoshi Ando, Hiroharu Ajiro, Takashi Hashimoto, Taku Demura, Masaaki Umeda, Toshiro Ito	(Check the Online Syllabus)		15	○	
	Special Lectures in Materials Science and Technology	L	7022	A	1	Program Director	MS	—	Masakazu Nakamura, etc	(Check the Online Syllabus)		15	○	
	Special Lectures in Intelligent Cyber-Physics	L	7023	A	1	Program Director	IS	MS	Yukiharu Uraoka, Jun Ohta, IS Lecturers	(Check the Online Syllabus)		15	○	
Special Lectures in Data Science	L	7024	A	1	Program Director	DSC (IS)	BS MS	Satoshi Nakamura, Hirotada Mori, Yukiharu Uraoka, Naoaki Ono, Yu Suzuki	(Check the Online Syllabus)		15	○		
Innovation Management A	L	7025	A	1	Kozo Kubo	IRI (IS)	—	Kozo Kubo	11/1	11/15	15	○		
Innovation Management B	L	7026	A	1	(David Sell)	IS	—	(David Sell)	12/10	2/25	15	○		
Career Management A	L	7027	—	1	Supervisor	—	—	Supervisor, (External lecturer)	Different for respective themes		15	—		
Career Management B	L	7028	A	1	Supervisor	—	—	Supervisor, (External lecturer)	(Check the Online Syllabus)		15	—		
Courses for independent research abilities	Research Status Hearing	—	8001	—	1	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research I	—	8002	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research II	—	8003	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research III	—	8004	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research IV	—	8005	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research V	—	8006	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	
	Doctoral Research VI	—	8007	—	3	Supervisor	—	—	Supervisor	Different for each laboratory		—	—	

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

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

Schedule of subjects whose specific dates are not stated in class period will be posted on the electronic syllabus as details are decided.

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## 6 – 2. Numbering Information

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Subject numbers consist of 4-digit numbers based on levels of courses.

[How to read the subject numbers]

First digit : The first digit in the 4-digit numbers indicates levels of subjects:

- 1XXX = General Subjects (For master's course)
- 2XXX = Introduction Subjects (For master's course)
- 3XXX = Basic Subjects (For master's course)
- 4XXX = Specialized Subjects (For master's course)
- 5XXX = PBL Subjects (For master's course)
- 6XXX = Research-based Subjects (For master's course)
- 7XXX = Courses for research skills (For doctoral course)
- 8XXX = Courses for independent research abilities (For doctoral course)

From second to fourth digits : The from second to fourth digits in the 4-digit numbers indicate serial

XXXX = Serial numbers (ranging from 01 to 99)

Depending on course subjects there are classifications. The class code is displayed in the list of subjects and faculty members in charge.

## 6 – 3. 2018 Timetable

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Check the 2018 Timetable at:

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Online Syllabus System>>

VII Degree examination criteria, etc.

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## 7 Degree examination criteria, etc.

**7 – 1 . Degree examination criteria**

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## &lt;Master's course&gt;

## (Criteria for Thesis Examination)

For master's theses, novelty and applicability are important, but examination shall be performed considering the following areas.

Specifically, each screening committee member will evaluate master's theses considering the following areas, and theses shall be deemed as passing the examination if evaluation meets the established criteria.

- 1 . Students have a full understanding of the research background and goals regarding.
- 2 . The research procedures and methods are carefully developed regarding.
- 3 . The experimental data, theoretical calculation results and research results are carefully organized and analyzed according.
- 4 . The development of conclusions and new theories based on achieved data is logically and fully explained.
- 5 . The thesis utilizes the proper academic methodology.
- 6 . Research ethically issues are properly handled

## &lt;Doctoral course&gt;

## (Criteria for Thesis Examination)

For doctoral theses, novelty and applicability are required, and a principal part of the doctoral thesis being published or scheduled to be published by the candidate in a peer-reviewed scientific journal or as a book or at an international conference with a peer review system, etc. is prerequisite for thesis examination.

When doctoral theses meet the above requirements, examination shall be performed considering the following areas.

Specifically, each screening committee member will evaluate doctoral theses considering the following areas, and theses shall be deemed as passing the examination if evaluation meets the established criteria.

- 1 . Students have a full understanding of the research background and goals regarding.
- 2 . The research procedures and methods are carefully developed regarding.
- 3 . The experimental data, theoretical calculation results and research results are carefully organized and analyzed according.
- 4 . The development of conclusions and new theories based on achieved data is logically and fully explained.
- 5 . The thesis utilizes the proper academic methodology.
- 6 . Research ethically issues are properly handled

## ○Milestones and capstones for progressive degree achievement

At NAIST, in order to promote a smooth path towards obtaining degrees, capstones and milestones for both the master's and doctoral programs have been established to facilitate progression. This system will be in place for students entering NAIST from the 2018 school year. The following is a guideline example for milestone/capstone timing for students entering NAIST in April and graduating within the standard period of study.

### <Master's course>

- Milestone: (A mid-term report) by November of the 2<sup>nd</sup> year
- Capstone: (Master's thesis examination) in February of the 2<sup>nd</sup> year

### <Doctoral course>

- Milestone: (A mid-term report) by November of the 1<sup>st</sup> year
- Milestone: (A mid-term report) by November of the 2<sup>nd</sup> year
- Milestone: (A mid-term report) by November of the 3<sup>rd</sup> year
- Capstone: (Doctoral thesis examination) in February of the 3<sup>rd</sup> year

※For the master's course, milestone evaluation is performed every year from the 2<sup>nd</sup> year

A rubric which indicates milestones and capstones can be found in the Research Guidance System.

In proceeding with your individual research, this rubric may be regularly referred to determine what is necessary to pursue even higher quality research and may also be helpful in writing and revising your thesis.

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## **7 – 2 . Degree Regulations**

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Please refer to the next page.

# 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 (Regulations No. 1, 2004).

## Article 2 (Degree types and majors)

1. Degrees conferred by NAIST shall be master’s degrees and doctoral degrees.
2. Science, engineering or biological sciences shall be specified in the degree certificate as the name of the area of studies.

## Article 3 (Degree requirements)

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

## Article 4 (Submission of thesis)

1. To complete the master’s course, students shall submit a master’s thesis together with the prescribed application form for thesis examination to the Dean of the Graduate School of Science and Technology and take the master’s thesis 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 Graduate School of Science and Technology and take the doctoral thesis examination.
4. To receive a doctoral degree pursuant to the provision of Article 3-3, 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 Graduate School of science and Technology.
7. Thesis and other documents, once submitted, shall not be returned, and the thesis examination fee, once paid, shall not be refunded.

#### Article 5 (Thesis)

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

#### Article 6 (Thesis examination and Examination of Academic Ability)

1. The master's and doctoral thesis examinations 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 Council shall have a Screening Committee for evaluating theses, and conducting the master's and doctoral thesis examinations and the Examination of Academic Ability.
2. Each Screening Committee shall consist of at least three faculty members of the Graduate School of Science and Technology and the shared educational and research institutions. In this case the Committee members shall include at least two professors, or one professor and one Associate Professor recognized by the Faculty Council.
3. Each of the Screening Committees shall have a chief referee.
4. Faculty members of 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 circumstances, subject to deliberation by the Faculty Council.

#### Article 8 (Notification of results)



1. The Screening Committee involved in conferral of master's degrees shall notify the Faculty Council 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 master's thesis examination.
2. The Screening Committee involved in conferral of doctoral degrees shall notify the Faculty Council of its decision as to whether to confer a doctoral degree or not in writing, immediately after completion of the evaluation of thesis and doctoral thesis examination or the Examination of Academic Ability. In this case, the relevant document shall be submitted from the following documents:
  - (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 doctoral thesis 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 doctoral thesis examination and the Examination of Academic Ability

#### Article 9 (Deliberation of degree conferral)

The Faculty Council 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 Graduate School of Science and Technology 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.

#### Article 16 (Miscellaneous provision)

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

#### Supplementary provisions

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

#### Supplementary provisions

(Effective date)

1. These Regulations shall come into effect on June 1, 2013.  
(Transitional measures)
2. The revised degree regulations (hereinafter referred to as “new degree regulations”) outlined in Article 12 shall apply to those who have been conferred the doctoral degree on or after the date of regulation revision. However, for those who were conferred the doctoral degree prior to the date of revision, the regulations in force at the time of conferment shall apply.
3. The revised degree regulations outlined in Article 13 shall apply to those who have been conferred the doctoral degree on or after the date of regulation revision. However, for those who were conferred the doctoral degree prior to the date of revision, the regulations in force at the time of conferment shall apply.

(Effective date)

1. These Regulations shall come into effect on April 1, 2018.  
(Transitional measures)
2. Those students who entered NAIST in or before the 2017 school year, excluding the regulations of 7-2 and notwithstanding the revised provisions, shall be governed by the previous stipulations.

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

修第 号

学 位 記

氏 名

年 月 日 生

本学大学院先端科学技術研究科先端科学技術専攻の博士前期課程（〇〇プログラム）を修了したので修士（〇〇）の学位を授与する

平成 年 月 日

奈良先端科学技術大学院大学長

学長名  
大学の印 学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

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

( 氏 \_\_\_\_\_ 名 )  
(Surname) (Givenname)

\_\_\_\_\_  
(Date of Birth)

for having successfully completed the Master's  
Course (Program of 〇〇) in the Graduate School of  
Science and Technology

Date of Issue: (発行日)

Official Seal of the Institute President's Seal

(学長署名)  
(学長名)  
President,

Master's No. : (番号) Nara Institute of Science and Technology

(Note 1) The sheet is A4-sized.

Degree Regulations

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

博第 号

学 位 記

氏 名

年 月 日 生

本学大学院先端科学技術研究科先端科学技術専攻の博士後期課程を修了したので博士（〇〇）の学位を授与する

論文題目 ○○○○○○○○○○○○○○○○○  
○○○○○○○○○○○○○○○○

平成 年 月 日

奈良先端科学技術大学院大学長

学長名  
大学の印 学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

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

( 氏 \_\_\_\_\_ 名 )  
(Surname) (Givenname)

\_\_\_\_\_  
(Date of Birth)

for having successfully completed the Doctoral Course  
in the Graduate School of Science and Technology

Thesis Title : (論文題目)

Date of Issue: (発行日)

Official Seal of the Institute President's Seal

(学長署名)  
(学長名)  
President,

Doctorate No. : (番号) Nara Institute of Science and Technology

(Note 1) The sheet is A4-sized.

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

博第	号
学 位 記	
氏 名	
年 月 日 生	
本学に学位論文を提出し所定の審査に合格 したので博士(〇〇)の学位を授与する	
論文題目	○○○○○○○○○○○○○○○○○ ○○○○○○○○○○○○○○○○○
平成	年 月 日
奈良先端科学技術大学院大学長	
大学の印	学長名 学長の印

(Note 1) The sheet is A4-sized.

NARA INSTITUTE OF SCIENCE AND TECHNOLOGY	
Hereby confers the degree of Doctor of (専攻分野の名称) upon	
( 氏	名)
(Surname)	(Givenname)
_____ (Date of Birth)	
for having submitted a Doctoral Dissertation and having passed the Prescribed Evaluations	
Thesis Title : (論文題目)	
Date of Issue:(発行日)	
Official Seal of the Institute President's Seal	
(学長署名)	
(学長名)	
President,	
Doctorate No. :	(番号) Nara Institute of Science and Technology

(Note 1) The sheet is A4-sized.

Degree Regulations

**7 – 3 . Schedule until degree conferral**

Degree conferral is performed every 3 months. (March, June, September and December) The rough schedule until degree conferral below is for April entrance and March graduation within the standard study period for each program.

## &lt;Master's course&gt;

Late December	Submission of thesis examination request and thesis summary →Submit these to the graduate school dean by the submission deadline. (the division office of your laboratory) Fill in the name of the specialization (Science, Engineering, or bioscience) you prefer on the request form.
Mid-January	Faculty Council (Thesis title, review committee member approval)
Mid-February to late February	Master's thesis presentation (Thesis review and examination) →Committee members confirm the capstone and follow the Criteria for Thesis Examination for the evaluation. Results are reported to the Faculty Council.
Late February or early March	Faculty Council (Examination report, deliberation, ruling: completion approval) →Confirmation of completion requirements (Graduation credits, passing of thesis examination, passing of examination) and approval of completion

## &lt;Doctoral course&gt;

Early December	Submission of thesis examination request, list of research papers, thesis summary and resume →Submit these to the graduate school dean by the submission deadline. (the division office of your laboratory) Fill in the name of the specialization (Science, engineering, or bioscience) you prefer on the request form.
Mid-December to mid-January	Faculty Council (Thesis title, review committee member approval)
Mid-December to mid-February	Public hearing (pre-examination) →Committee members confirm the capstone and follow the Criteria for Thesis Examination for the evaluation. Thesis (final version) guidance is given when necessary. If there are opinions related to evaluation, committee members will consider them. Passing students proceed to thesis examination. Corrections are made to the public hearing version to complete the final thesis version
Upon passing the pre-examination	Thesis Examination →Committee members follow the Criteria for Thesis Examination for the final thesis version examination. Students participate when necessary. Results are reported to the Faculty Council.
Late-February or early March	Faculty Council (Examination report, deliberation, ruling: completion approval) →Confirmation of completion requirements (Graduation credits, passing of thesis examination, passing of examination) and approval of completion



VIII Study Support

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## 8 Study Support

### 8 – 1. Health Care Center (㊸ on the campus map)

To maintain the physical and mental health of our faculty, staff and students, the Health Care Center provides health examinations, daily treatment, and lifestyle guidance and health education. These three aspects of health promotion, namely checkups, treatment, and prevention, are addressed at the Health Care Center on the 2nd floor of the University Union building. The Center has an examination room, a chat and health counseling room, and a recovery room in a functional layout. A medical doctor and a nurse are regularly on duty.

Director of Health Care Center: Hidetaka Hogaku

Health Care Center Nurse: Kinuyo Nishiyama

Hours: 9:00 – 13:30, 14:30 - 17:00, Monday - Friday (excluding year-end/New Year and national holidays)

The Health Administration Center notifies members of necessary information such as schedule of health examinations by e-mail. In addition, the annual HCC NEWS (Health Care Center News) provides a variety of useful information.

<<NAIST TOP PAGE → About NAIST → Offices → Health Care Center>>

### 8 – 2. 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)

### 8 – 3. Career Services Office

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

1. **Hours:** 9:30-17:30 (Closed between 12:00 and 13:00) (Closed on weekends and 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 can be found 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 support students in their career development and job hunting. Seminars, including the dates, are available on the Career Services Office website or via e-mails.

#### 4. Lending service for materials related to job hunting

You can borrow materials that are useful in job hunting in Japan or career development. The rules for borrowing materials are also on the Career Services Office website.

#### 5. Contact

Extension: 5921/5922 E-mail: [career@ad.naist.jp](mailto:career@ad.naist.jp) URL: <http://www.naist.jp/career/>

**8 – 4. Information Initiative Center (ITC) {⑧ on the campus map}**

ITC manages and operates the 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 called "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 configurations to meet user needs and build an advanced environment.

Meanwhile, an information processing environment has been developed from the researchers viewpoint, based on the basic principle of "fulfillment without excess or deficiency" represented by the idea Mandara.

○How to use the Mandara System

For information about major services, please see the following URLs.

- Mail  
<http://itcw3.naist.jp/ITC-local/Mail/mailenv.en.html>
- Wireless LAN  
<http://itcw3.naist.jp/ITC-local/wireless/index.en.html>
- Campus Licensed Software  
<http://itcw3.naist.jp/ITC-local/campuslicense/index.en.html>
- Printer (Multi-function Printer)  
<http://itcw3.naist.jp/ITC-local/manual/printer/printer.en.html>
- High Performance Computer Server  
<http://trac.naist.jp/trac/grid/>

For information about other services and inquiries, please refer to the upper tabs of the following URL.

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

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](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](http://itcw3.naist.jp/ITC-local/policy/mandara_operation_policy.en.pdf)
- Password  
<http://itcw3.naist.jp/ITC-local/password/good-passwd.en.html>
- Computer Security on Mandara  
<http://itcw3.naist.jp/ITC-local/policy/security/index.en.html>  
**Keep your computer secure in order to use the network properly.**
- Use of P2P Software  
<http://itcw3.naist.jp/ITC-local/policy/p2p/p2p-request.en.html>  
**Use of P2P file-sharing software in NAIST or the NAIST dormitory is prohibited.**



IX Campus Life



## 9 Campus Life

### 9 – 1. Tuition and payment

#### ○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 28 (Monday), 2018
Doctoral course	(267,900 yen for a half-year term)	Autumn semester (October to March): Due November 27 (Tuesday), 2018

\*1 : If the tuition fee is revised during your enrollment, the new tuition fee will be charged.

(You will be notified of the tuition fee for the semester by e-mail during May and November.)

\*2 : Payment (by automatic bank transfer) is due on May 27 and November 27 every year. If the due date falls on a non-business day of the financial institution, the payment will be transferred on the following business day. (Your account balance is checked at 3:00 pm on the business day preceding the due date.)

#### ○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 27 (Friday), 2018. 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.

### 9 – 2. Student ID Card

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

#### ○Precautions on handling your student ID card

- ① You should keep your student ID card in a case and carry it at all times at NAIST.
  - ② You are not allowed to lend or assign your student ID card to anyone else.
  - ③ If you lose your student ID card or your card has become unusable due to failure of the magnetic strip, etc., you should immediately report it to the Academic Affairs Section of the Educational Affairs Division.
- If the card reader does not react properly upon inserting your student ID card to enter a certain building, call the Security Center on the first floor of the Administration Bureau building through the interphone, state your affiliation and name, and the key will be unlocked for you.

- ④ When your student ID card has expired or you are no longer a NAIST student due to withdrawal or for other reasons, return your student ID card to the Academic Affairs Section of the Educational Affairs Division without delay.
- ⑤ Protecting your card:
- Keep your student ID card away from strong magnetic fields or devices (e.g. NMR machines).
  - Do not leave your card in hot places (e.g. in a car during summer).
  - Do not fold your student ID card.

### 9 – 3. Student Personal Report

The information contained in the “Student Personal Report” (Gakusei kojinhokusho) 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	<ul style="list-style-type: none"> <li>• Your address and telephone number (fixed and/or mobile) where you can be reached after enrollment in NAIST</li> <li>• Information about your place of work (if you are a working student)</li> <li>• Name of a contact person in case of emergency, person’s relationship with you, and his/her address and telephone number</li> </ul>
Where to report	Please report the change to the Academic Affairs Section of the Educational Affairs Division.

### 9 – 4. Procedures and issuance of certificates

#### ○Procedures

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

Document to be submitted	When to submit	Contact office
Leave of absence request form (Kyugaku Negai)	When you are to take a leave of absence for three consecutive months or longer by illness, studying abroad, and so on. (If illness is the reason for the leave, a medical certificate should be attached.) * The form should be submitted at least two weeks in advance.	Academic Affairs Section, Educational Affairs Division
Return from leave request form (Fukugaku Negai)	When you wish to return to NAIST before the period of the leave of absence is over. (For those who were absent due to illness, please attach a medical certificate.)	
Return from leave notice form (Fukugaku Todoke)	When you wish to return from leave during your scheduled leave of absence period.	
Withdrawal form (Taigaku Negai)	When you are to withdraw from NAIST * The form should be submitted at least two weeks in advance.	
Change of name form	When your name changes * A residence certificate or other document proving your change of name	

	should also be submitted.	
Student ID card reissue request form	When you have lost your student ID card or your card has become unusable due to damage or dirt	
Overseas travel Notification	When you are to travel overseas for less than three months (except when the travel is needed as part of the regular coursework at NAIST)	Education Planning Section, Educational Affairs Division
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
Plan after completion of course /job (informal employment offer) report form	When you graduate or leave school	Career Services Office
<p>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:          &lt;&lt;NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs → Electronic Education Record System&gt;&gt;</p>		

### ○ Notes on procedures for leave of absence or withdrawal

#### (1) Leave of absence

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

#### (2) Withdrawal

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

(3) Common matters

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

○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
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)	Only available for those who have proceeded to the doctoral course internally from the master’s course at NAIST.	



Certificate of academic records of Master's course (Japanese/ English)		Location: Entrance lobby of NAIST Library
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)	<ul style="list-style-type: none"> <li>• Up to 10 certificates are issued per student annually.</li> <li>• The certificate is valid for three months.</li> </ul> (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 Student Support Section of the Educational Affairs Division using the prescribed application form. You should apply well in advance, as some certificates take time to issue.

### 9 – 5. Commuter certificate

○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.

○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.

#### **9 – 6 . Scholarships of private organizations**

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

#### **9 – 7 . 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.

#### **9 – 8 . Personal Accident Insurance for Students Pursuing Education and Research (PAS)**

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

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

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

#### **9 – 9 . 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.

**9 – 10. Student dormitories (Campus map 13)**

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

[Outline of student dormitories]

Type	Single-person occupancy	Couple occupancy	Family occupancy
Structure	Five-story reinforced concrete building	Five-story reinforced concrete building	Five-story reinforced concrete building
No. of residential units	559	50	10
Floor area	13 m <sup>2</sup>	36.98 – 41.45 m <sup>2</sup>	51.56 m <sup>2</sup>
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

**9 – 11. 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.

**9 – 12. Parking a car and bicycle****○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

**○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.

**9 – 13. Student welfare facilities**

○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.

○Social venue for researchers: Guesthouse Sentan (Campus map6)

The guesthouse Sentan is a facility for faculty/staff and students as well as visiting researchers. For more details, please refer to the website of NAIST.

[http://www.naist.jp/en/campuslife/recreational\\_facilities/sentan.html](http://www.naist.jp/en/campuslife/recreational_facilities/sentan.html)

[Accommodation] Reservations: Welfare Section of Personnel Division

[Assembly Hall] Reservations: Welfare Section of Personnel Division

[Fitness Room] No reservation needed to use the fitness room.

○Sports facilities

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

Facilities	Open hours	Selection by drawing
Athletic field	8:00 am to sunset	Successful applicants are selected by ballot, which is held on the 20 <sup>th</sup> day of the preceding month (or the following weekday if the day falls on a Saturday, Sunday or national holiday). Venue of ballot: Lobby on the first floor, Interdisciplinary Frontier Research Complex No.2 Time of ballot: 9:00 am
Volleyball/basketball court	8:00 am to 10:00 pm	
Tennis court	weekdays 8:00 am to sunset weekends,holidays 7:00 am to sunset	
Tennis court (with lighting)	weekdays 8:00 am to 9:00 pm weekends,holidays 7:00am 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.

**9 – 14. Student Consultation, Our various counseling service systems**

○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.

<<NAIST TOP PAGE → For Students (Internal Only) → Student Consultation>>

○Consulting Issues Related to Harassment

Harassment is behavior which violates a person's human rights by unwanted verbal and/or physical conduct that hurts the person's sense of self. There are primarily five types of harassment:

Sexual Harassment	Academic Harassment	Power Harassment
Harassment related to leave due to pregnancy, birth and child-care, etc.		Moral Harassment

In our University, we have harassment consultants to deal with complaints and consultation needs related to harassment. If you have any complaints or issues, feel free to contact a consultant by phone or e-mail. For more details regarding harassment consultants etc., please refer to the University's homepage.

<<NAIST TOP PAGE → For Students (Internal Only) → Consulting Issues Related to Harassment >>

#### ○Counseling regarding course content

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

<<NAIST TOP PAGE → For Students (Internal Only) → Academic Affairs → Online Syllabus System >>

#### ○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.)

### **9 – 15. Other matters**

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#### ○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.

#### ○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.

#### ○Website for students [<https://ad-info.naist.jp/member/>]

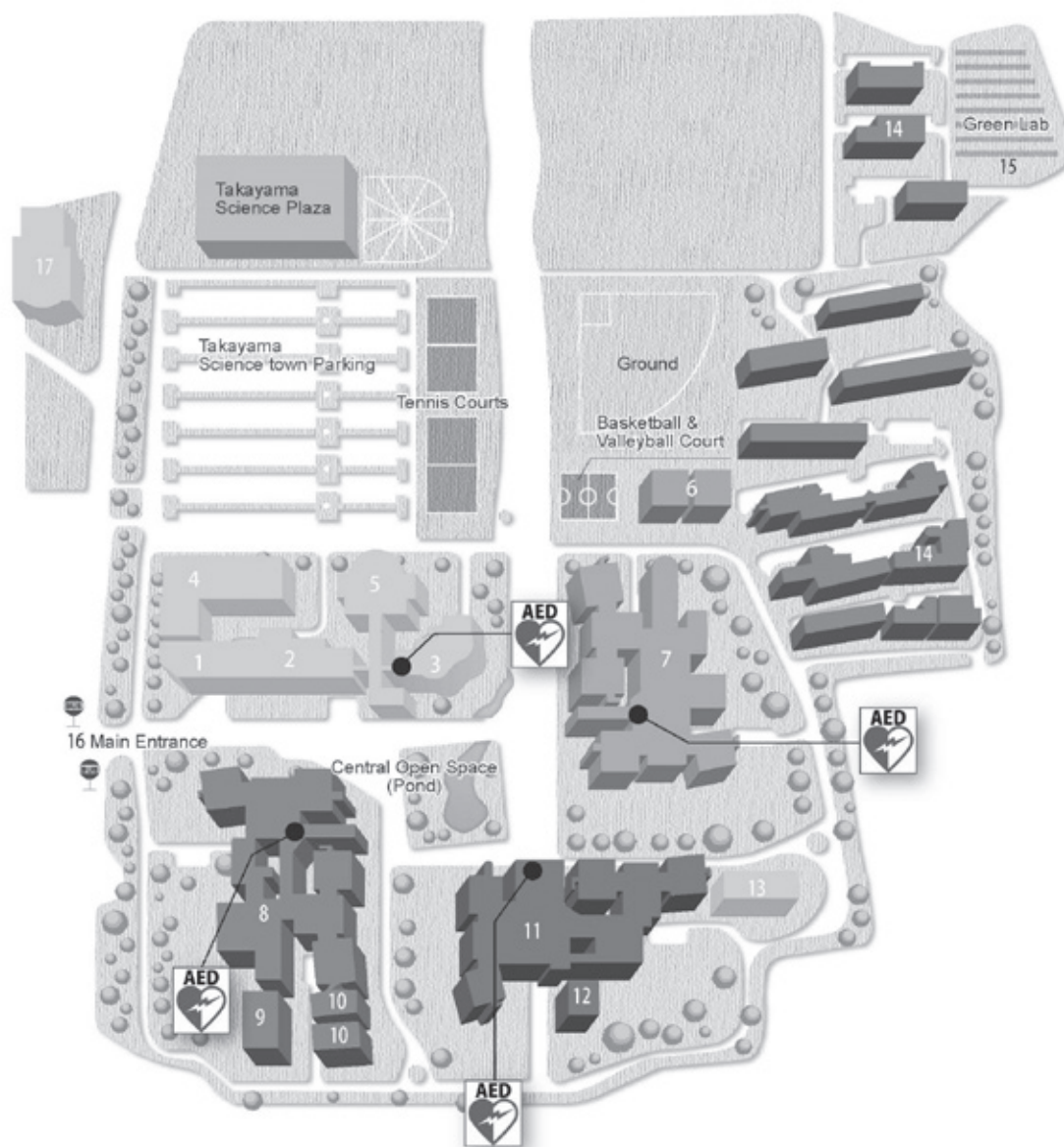
You can access the website for students by clicking “Internal Only” on NAIST's website. This website contains various useful information, including announcements (the latest updates), Academic affairs (curriculum, notice to students for the academic records, changes of class schedule), an online English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

### **9 – 16. Campus Map**

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Please refer to the next page.

- Campus Map



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

# Regulations of Nara Institute of Science and Technology

April 1, 2004  
Regulations No. 1

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## 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 school and its department shall be established as shown in the following table.

Graduate School	Department
Graduate School of Science and Technology	Department of Science and Technology

## Article 6 (Objectives of the Graduate School)

The Graduate School promotes world-leading research in the core fields of advanced science and technology, information, biological, and materials science, and their interdisciplinary areas, and, while pursuing the development and fusion of this research and the exploration of new research fields, will aim to foster human resources with ‘aggressiveness, comprehensive skills and knowledge, integrative abilities, and a global outlook’ to undertake the solving of the problems facing society and our future, and the new developments in advanced science and technology, through the structured education based on NAIST’s research achievements.

## Article 7 (Faculty)

1. The Graduate School has an academic faculties.
2. Matters relating to the academic faculty shall be provided for separately.

## Article 8 (Courses and their purposes)

1. The Graduate School 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 8-2 (Education Programs)

1. The Doctoral Course and the Master’s Course have each of the following Education Programs:  
Information Science and Engineering  
Computational Biology



Biological Science  
 Bionanotechnology  
 Materials Science and Engineering  
 Intelligent Cyber-Physical Systems  
 Data Science

2. Matters relating to the Education Programs shall be provided for separately.

#### 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

Dean of the Graduate School

Division Directors

Deputy Directors of the Divisions

Director of Information Initiative Center (ITC)

Directors of collaborative educational and research facilities

Director of the Research and Education Center for Genetic Information

Director of the Research and Education Center for Materials Science

Director of the Data Science Center

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 (Dean of Graduate School)

The Dean shall be responsible for the operation of the Graduate School.

#### Article 16 (Division Directors)

Each Division Director shall be responsible for supporting the Dean of the Graduate School and the operation of the respective division.

#### Article 16-2 (Division Deputy Directors)

Each Division Deputy Director shall be responsible for supporting the Division Director.

#### 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)

Each Director 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. The Graduate School 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 agreements concluded by the Graduate School
  - (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. The Faculty Council shall consist of full-time and associate professors engaged in educational or research activities of the 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 the Graduate School shall serve as Chairperson of the 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 Division Deputy chosen in advance by the Dean shall act as the chairman in place of him or her.
  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.

#### Article 20-2 (Representative Council)

1. The Faculty Council shall have a Representative Council consisting of those chosen from members the Faculty Council, as designated by the Faculty Council
2. The Faculty Council may make resolutions using the Representative Council resolutions, as designated by the Faculty Council.

#### V. Admission Capacity and Enrollment Capacity

##### Article 21 (Admission and enrollment capacity)

The admission capacity and enrollment capacity of the 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 a 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 NAIIST as having adequate academic ability to be educated at the Graduate School thereof

(10) Have been recognized by NAIIST 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 NAIIST 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.

Article 26 (Timing of admission)

Students shall be admitted to NAIIST 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, 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 the Graduate School

#### Article 33 (Graduate school education)

Education at the Graduate School 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.

#### 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. The Graduate School shall present to 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. The Graduate School shall, when assessing 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 Deleted

#### Article 38 (Studying in a graduate school outside of NAIST)

1. Contingent on prior consultation with the graduate school offering classes, students may take a course offered by a graduate school outside of NAIST if the Dean of the Graduate School deems it educationally beneficial to do so, subject to screening by the Faculty Council.

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 a 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 Graduate School deems it educationally beneficial to do so, subject to screening by the Faculty Council.
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 graduate school or research institution, students may receive Research Guidance offered by the graduate school or research institution outside of NAIST as needed if the Dean of the Graduate School deems it educationally beneficial to do so, subject to screening by the Faculty Council. 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 the Graduate School, receive necessary Research Guidance, and pass the master's thesis evaluation and 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 evaluation if the Dean of the 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 evaluation and 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 a 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 evaluation and 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.

#### 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 School of NAIST are as shown in the following table.

Graduate School of Science and technology	Department of Science and Technology	Teaching qualifications	Subject
		Junior high school qualifications	Science
		High school qualifications	Science

XI. Leave of Absence, Study Abroad, Readmission, Transfer from/to another School, 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.
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 to the Graduate School of NAIST may be permitted to do so by the President, subject to screening by the Faculty Council, 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 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, 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 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 a graduate school outside of NAIST shall obtain permission of the President in advance.

2. If transfer to a Graduate School outside of NAIST is permitted pursuant to the provision of the foregoing subsection, it shall apply to cases in which students will enroll 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, or the United Nations University graduate program.

#### Article 52 Deleted

#### Article 53 (Withdrawal)

A NAIST student who wishes to withdraw from NAIST shall obtain permission of the President in advance.

#### 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 a graduate school outside of NAIST, whether domestic or foreign, may be admitted to NAIST as special auditing students to take a course at the Graduate School of NAIST if deemed beneficial for educational purposes by the Dean of the Graduate School, subject to screening by the Faculty Council.
2. If admission is permitted pursuant to the provision of the foregoing subsection, it 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, or the United Nations University graduate program.
3. 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 Graduate School of NAIST if deemed beneficial for educational purposes by the Dean of the 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 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 a university (including foreign universities) or technical college may be admitted to NAIST as undergraduate internship students to receive academic guidance in the graduate school of NAIST if deemed beneficial for educational purposes by the Dean of the 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.
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.

Supplementary provision

(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 of these Regulations, the enrollment capacity for the 2011 and 2012 school years shall be as shown in the following table.

Fiscal Year	Graduate school	Department	Admission capacity		Enrollment capacity
			Master's Course	Doctoral Course	
2011	Information Science	Information Science	135	40	175
		Information Processing			96
		Information Systems			77
		Bioinformatics and Genomics			59
		Total	135	40	407



	Biological Sciences	Biological Sciences Cell Biology Molecular Biology Total	125   125	37   37	162 81 101 344
2012	Information Science	Information Science Information Processing Information Systems Bioinformatics and Genomics Total	135    135	40    40	350 18 14 11 393
	Biological Sciences	Biological Sciences Cell Biology Molecular Biology Total	125   125	37   37	324 15 19 358

(Transitional measures concerning attainable qualifications for teacher licensing at the Graduate School)

4. Notwithstanding the provision of revised Article 46 subsection 2 of these Regulations, 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

Supplementary provision

These Regulations shall come into effect on May 17, 2016

Supplementary provision

These Regulations shall come into effect on December 1, 2016

Supplementary provision

These Regulations shall come into effect on April 1, 2017

Supplementary provision

(Effective date)

1. These Regulations shall come into effect on April 1, 2018.

(Transitional measures concerning the Graduate Schools and Departments)

2. Notwithstanding the provision of revised Article 5 of these Regulations, the Graduate School of Information Science, Department of Information Science, Graduate School of Biological Sciences, Department of Biological Sciences, Graduate School of Materials Science, and the Department of Materials Science shall be maintained until the students enrolled in these departments as of March 31, 2018 (Current Students) are no longer enrolled.

(Enrollment capacity for 2018, 2019 school year)

3. Notwithstanding the provision of Article 21, the enrollment capacity for the 2018 and 2019 school years shall be as shown in the following table.

Fiscal Year	Graduate school	Department	Admission capacity		Enrollment capacity
			Master's Course	Doctoral Course	
2018	Science and Technology	Science and Technology	350	107	457
	Information Science	Information Science			215
	Biological Sciences	Biological Sciences			199
	Materials Science	Materials Science			150
2019	Science and Technology	Science and Technology	350	107	914
	Information Science	Information Science			40
	Biological Sciences	Biological Sciences			37
	Materials Science	Materials Science			30

(Transitional measures concerning Current Students)

4. The education of Current Students in the continuing Graduate Schools of subsection 2 of this Article, notwithstanding the provisions of these revised regulations, shall depend upon the previous regulations.

Schedule (supplementary to Article 21)

Graduate school	Department	Admission capacity		Enrollment capacity
		Master's Course	Doctoral Course	
Science and Technology	Science and Technology	350	107	1,021