



Characteristics

■ Student Diversity

- Selecting students by interview instead of written examination, considering students' specialties
- Holding entrance examinations three times a year
- Incorporating a curriculum which meets the needs of students from diverse fields
- Maintaining a flexible curriculum (multiple research advisors, transferable credits, external supervisors)

■ Accelerated Degree Programs

Students who are in excellent standing may complete their program in shorter periods. The minimum periods required for a master's degree and a doctorate are one and two years, respectively.

■ Mobile and Diverse Faculty

NAIST is appointing capable young researchers who have achievements in advanced research at colleges, universities, and public or private research institutes.

■ Promotion of International Exchange and Cooperation

NAIST actively promotes international exchange by organizing joint research projects with scientists from abroad and by holding international symposia. We also foster international education by accepting students from overseas.

■ Promotion of Industry-Government-Academia Collaboration

To promote collaboration and sharing of intellectual resources, technology and information between universities, industry and the community, NAIST works in close cooperation with industry, government, and academic institutions. We also organize various activities to expose people in the local community to the advanced education and research we offer.

Global COE Program (2007-2012)

Global Program for Frontier Biosciences: Adaptation and survival strategies in a changing global environment

The Graduate School of Biological Sciences trains students, under the unifying theme of molecular and cellular biology, in diverse disciplines of modern biology. The School was ranked second among Japanese research institutions in citation rate in the areas of Animal and Plant Biology, Molecular Biology/Genetics, and Microbiology in 2006. It was selected to study "molecular networks for cellular activities" in the 21st Century COE Program (2002-2006), and was highly rated in the mid-term evaluation. In this new Global COE Program, we are initiating a new project entitled "Frontier biosciences: Adaptation and survival strategies in a changing global environment" to study relationships between organisms and their environment to improve human life, and to advance science in the future.

1. Establishment of an international network in research and graduate training: We are establishing close relationships with the Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing and the College of Biological Sciences, University of California, Davis (UCD-BS), to exchange students and researchers and organize symposia and workshops, with the aim of providing international training for students and young scientists.

2. Graduate training: We are organizing international student science workshops and an annual off-campus student workshop, and offering advanced lecture courses in English at UCD-BS and Nara. We are also encouraging all the students in our doctoral program to present their research at international meetings.

3. Supporting systems for young researchers: We are establishing two postdoctoral systems for Japanese researchers. One is for newly graduated Ph.D.s (COE postdocs), to provide them with further training in research methodology, and the other is for more experienced researchers (research fellows). In addition, we are hosting postdocs from overseas.



21st Century COE Program

The 21st Century COE Program was initiated by MEXT in 2002 to propel colleges and universities to world-class level. We participated in this program to create top-level centers of research and education in each field, based on competitive principles and evaluation by independent review.

NAIST was chosen as a Center of Research and Education in two fields in 2002: “Information Sciences, Electrical and Electronic Engineering” and “Life Sciences”.

Graduate School	Program / Description
Information Science	<p>Ubiquitous Networked Media Computing 2002 - 2006</p> <p>Creation of a ubiquitous internet environment combining networks with audio-visual elements</p> <ul style="list-style-type: none"> • Strategic research • Creation of international research base: exchange agreements with University of Hawaii (USA), Southern Taiwan University of Technology, and Joensuu University (Finland) • Promotion of Industry-Government-Academia Collaboration • Training young researchers: COE-funded researchers, support for post-doctoral researchers for developing research seeds
Biological Sciences	<p>Exploiting New Frontiers in Bioscience 2002 - 2006</p> <p>Creation of new life science domains by integrating bioscience and information science</p> <ul style="list-style-type: none"> • Research policy: Promoting coordinated research with free cross-discipline cooperation, supporting young researchers, improving support systems • Education system: Curriculum reforms, new course units, introducing a degree that integrates master's and doctoral studies, recruitment of COE research assistants and postdoctoral researchers, creating internationalization: exchange agreements with Mahidol University (Thailand) and Gadjamahda University (Indonesia), joint research agreement with Botswana's Ministry of Agriculture • Establishing research base: Responsive funding for outstanding research, organizing international conferences, COE evaluation committee meetings

Initiatives for Attractive Education in Graduate Schools

This project was started in 2005 by MEXT and is intended to develop creative young talents. All of our Graduate Schools are now part of the project, following the selection of our programs from the Schools of Information and Biological Sciences in 2005 and of Materials Science in 2006. The project aims to bring wider viewpoints and unique ideas into highly specialized subject areas, by creating a systematic environment that encourages young researchers to carry out original research.

Graduate School	Program / Description
Information Science	<p>Core Program to Promote Talented Students for the Future in Information Science 2005-2006</p> <p>Wide-ranging and cross-disciplinary curriculum and special scholarships for engineers and researchers with high Information and Communication Technology expertise. Students are trained to become world leaders able to adapt to the highly developed information society.</p>
Biological Sciences	<p>Constructing Educational Programs at the Frontiers of Biological Sciences 2005-2006</p> <p>For better dissertation supervision management, regular reports on and advisory sessions for students are introduced. Measures are taken to improve communication skills in English for international research activities.</p>
Materials Science	<p>Developing Researchers for Advanced Integrated Studies in Materials Science 2006-2007</p> <p>Two courses run in parallel to train students to create novel integrated areas of study and to equip them with international expertise through scientific English training and visits overseas.</p>



Development of University Intellectual Property Headquarters

The Headquarters were formed under an initiative of MEXT in 2003 whose purpose was to establish a model for strategic creation, management and utilization of intellectual property in universities and other organizations. An interim review of the plan's two-year performance was conducted by the Evaluation Panel for University Intellectual Property Headquarters, comprising members from the industrial and academic world. NAIST was given the top evaluation by the Panel, who identified us as one of the country's top license fee earners. The Panel concluded that we are an "exemplary small-scale university with a functional organization that links its strengths to industry-government-academia collaborations".

Pilot Project for Super Industry-Government-Academia Collaboration Headquarters

This project began in 2005 as part of the MEXT initiative for the Development of University Intellectual Property Headquarters. Its goal is to build an integrated structure within universities based on the Intellectual Property Headquarters, using research resources and thus promoting organizational collaborations. Organizations already performing activities under the Development of University Intellectual Property Headquarters scheme applied to the program, and NAIST was one of the six universities chosen.

Selected to undertake a project entitled "Improving the Global Industry-Government-Academia Collaboration System"

This project was launched in 2007 to develop Intellectual Property Headquarters of universities and boost industry-government-academia collaboration activities. NAIST has been selected to carry out this project, reflecting our excellent reputation in areas such as licensing business including Material Transfer Agreements (MTAs), intellectual property management, international activities, and nurturing of human resources.

Excellent acquisition of outside funds and research activities

We have also been working on the acquisition of funds from outside. According to a report by the Cabinet Office's 60th Council for Science and Technology Policy, held on Oct. 27, 2006, which draws up science and technology policy, NAIST ranked first across Japan in the amount of funds received through joint and commissioned research, and second in the amount of scientific research subsidies. Consequently, we also ranked No.1 in the research funding received in Japan. NAIST also ranked high in many other fields including revenue from patents.

60th meeting of the Council for Science and Technology for FY 2005 (among 87 national universities)	
Ranked 1st	Research Expense (per faculty member)
	Funding for Joint/Commissioned Research Projects (per faculty member)
	Number of Disclosed Patents (per faculty member)
	External Funding Ratio (external funding on ordinary income)
2nd	Proportion of Young Researchers (under 37)
	Grant-in-Aid for Scientific Research (per faculty member)
3rd	Research Expense/Operating Cost (proportion of research expense in operating cost)
	Revenue from Patent Implementation (per faculty member)

Media recognition of NAIST's research

- Nihon Keizai Shimbun (February 16, 2004) reported the results of their research capability analysis of engineering schools in public and private colleges and universities in Japan. NAIST was ranked top in research planning (amount of research funds by public subscription), with a high ranking in other areas, and in second place for overall research capability.
- Nihon Keizai Shimbun (June 25, 2005) reported that the three research areas in the School of Information Science were ranked A (in the top 5%) in a Ministry of Economy, Trade and Industry survey. The survey was performed as part of the Ministry's "Project for the Promotion of Fostering and Evaluation of Human Resources" for evaluating universities in educational, research and social activities, as well as in human resource development efforts for industrial competitiveness.
- In "University Ranking 2007" (published by Asahi Shimbun), NAIST was ranked first among universities in its "important publication" category, a survey of 310,000 papers authored by Japanese researchers. The ranking was based on the number of citations and project proposals in the Citation Index Database of Thomson Scientific.
- As reported in the Asahi Shimbun (June 8, 2006) and elsewhere, NAIST came sixth for patent income in 2005 among 146 research institutions (87 national universities, 55 national technical colleges and four intercollegiate organizations). We were also one of only two organizations which had patent income of more than 10 million yen per year for two years running.
- The IT Specialist Program Initiative for Reality-Based Advanced Learning, a joint project in which NAIST participates, has been designated one of the "Leading IT Specialist Training Promotion Programs" under a MEXT initiative that began in 2006. Nikkan Kogyo Shimbun (October 6, 2006) reported that 25 universities (26 projects) applied and only six universities (6 projects) have been granted this status.