National Institute of Technology (KOSEN), Nagano College

Department of Engineering
Advanced Program

COLLEGE CATALOG

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School Emblem

The school emblem consists of the two letters "kousen" (technical college) surrounded by the young leaves and buds of a linden tree, with a mountain shape at the top.

Logo

The "N" of National Institute of Technology, Nagano College is depicted as the powerful current of the Chikuma River in Nagano Prefecture, and the educational philosophy of "knowledge, virtue, and body" is expressed using the red of the sun illuminating the future, the light blue of melting snow, and the green color of the mountains.

Foreword

Dr. HAYASE Nobuki

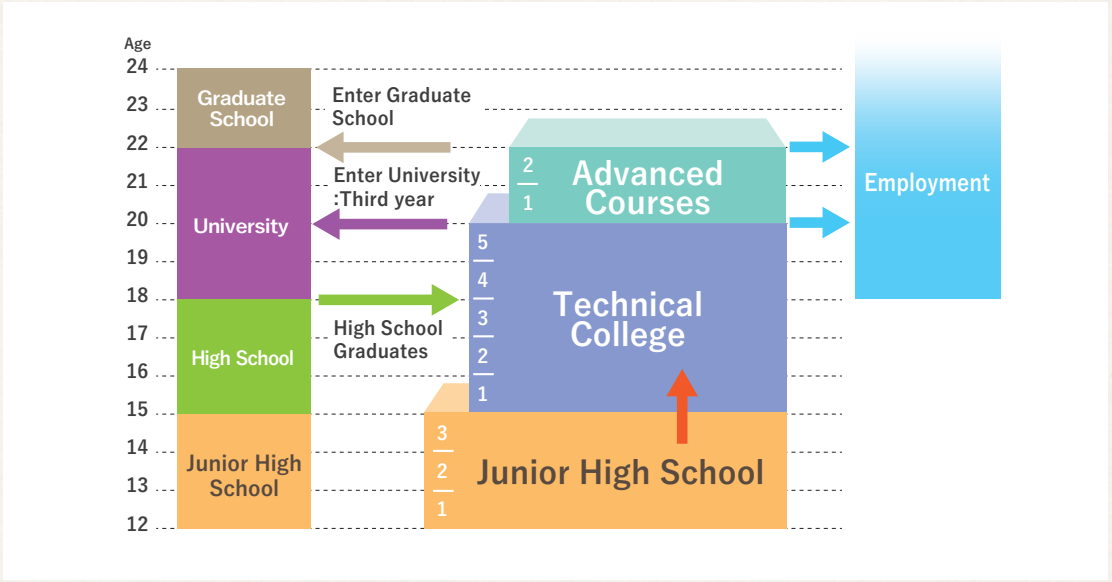
The National Institute of Technology (KOSEN), Nagano College was established in 1963 as the only technical college in Nagano Prefecture. Since then, it has produced over 9,000 graduates and has earned a strong reputation from industry and other sectors as a higher education institution that offers early and integrated education in science and engineering.

From the 2022 academic year, the previous five departments have merged into the “Department of Engineering”. This department offers three courses : Informatics and Electronics (IE), Mechanics and Robotics (MR), and Civil Engineering (CE). After enrollment, students are expected to learn a wide range of foundational subjects and then choose the course that best suits them. Additionally, completion of the general education program organized by the Faculty of Liberal Arts (LA) has enabled students to develop “human competencies” grounded in social living, acquire a wide range of engineering knowledge through mandatory sub-majors, and cultivate human resources capable of responding to recent changes in industrial structure and technology as well as the needs of an increasingly diverse world. We also focus on nurturing human resources with a global mindset by actively promoting overseas training and internships.

The number of graduates who find employment is approximately equal to that of those who pursue further education. Regarding employment, the school has a high employment rate within the region. This may be partly because we have cultivated a practical educational system closely aligned with the needs of regional industries and supported by the activities of The Nagano KOSEN Technology Promotion Association. Concerning further education, students have the option to transfer into the third year of universities or continue their studies in our advanced program. Furthermore, we offer a joint educational program with Toyohashi University of Technology, through which students who complete the advanced program can earn a bachelor’s degree from the university.

Guided by our educational philosophy that “A Good Engineer must first be a Good Person” we strive to cultivate practical and creative engineers who can persistently address the complex and challenging issues of a globalized society and contribute to shaping a brighter future.

Future Options



National Colleges of Technology accepts graduates from junior high schools and provides five-year integrated education in order to foster engineers who are required in the global society.

Graduates receive a Title of Associate（Engineering）and are eligible to enter advanced two-year courses or transfer to a university as juniors, depending on their major. Students in advanced courses are awarded the degree of “Bachelor of Engineering” by the National Institution for Academic Degrees and Quality Enhancement of Higher Education.

Educational Philosophy

A Good Engineer must first be a Good Person.

Educational and Administrative Policy

1. Based on the educational philosophy, we aim to be an institution of higher education that fosters practical engineers with rich humanity, originality, and creativity. In addition, we establish an educational system to foster engineers who can respond to advances in science and technology, social issues, and globalization.

2. We shall cooperate with the local community and operate the school in close contact with the community. We shall also foster students who are highly regarded and beloved by the communities, as well as who will fulfill our mission as an institution of higher education demanded by society.

Ideal Image of Human Resources

1. Practical engineers who have basic knowledge of engineering, possess a sense of ethics, discover problems on their own, and can solve problems by using their technical knowledge and skills.

2. People who are broadly educated, show interest in social, environmental and other issues, and actively participate in society with their leadership.

3. People who respect cultural diversity can play an active role in exchanges with other countries and contribute to the international community.

List of Agreements with Overseas Educational Institutions

Country	Name of educational institutions
Taiwan	National Taipei University of Technology
Taiwan	Natonal United University
Thailand	Thai-Nichi Institute of Technology
Thailand	Science-Based Technology Vocational College (Chonburi)
Thailand	Suranaree Technical College
Thailand	Princess Chulabhorn Science High School Phitsanulok
Vietnam	The University of Da Nang, University of Science and Technology
Canada	Northern Alberta Institute of Technology
Canada	Saskatchewan Polytechnic

Department of Engineering

The Department of Engineering has three courses: Informatics and Electronics, Mechanics and Robotics, and Civil Engineering. Students select their major when they advance to the second year.

We have established a curriculum that allows students to acquire a broad range of knowledge across disciplines, and to develop human resources who are both specialists and generalists.

I E Informatics and Electronics

Informatics and Electronics course aims to train engineers in the field of information electronics. Students will study a wide range of information fields such as software and information security, as well as electrical energy, information networks, and electronics technology.

M R Mechanics and Robotics

Mechanics and Robotics course, students study mechanical engineering, control engineering, and other subjects that are necessary for developing and designing mechanical systems such as automobiles and robots.
This course nurtures practical engineers through hands-on experiments and practical training from basic to advanced levels.

C E Civil Engineering

Civil Engineering course aims to develop engineers who can develop social infrastructure for a safe and cultured lifestyle and can work on environment-conscious urban development. Students will acquire a wide range of knowledge and insight, including local disaster prevention and environmental issues in response to natural disasters.

Faculty of Liberal Arts

Faculty of Liberal Arts offers practical education across all grades.
In the first year, students take the ZUKUDASE seminar, in which they explore topics of interest in a small-group seminar format; in the second year, there are small-group English conversation classes with native English-speaking teachers and overseas training. In the upper grades, students develop a global mindset through English presentation classes. In 'Nagano Studies', students can also attend lectures on the history and culture of Nagano Prefecture and take part in winter sports practice.

Advanced Program

The Advanced Program is a two-year educational program that deepens the five-year basic education at KOSEN. A Bachelor's degree in Engineering is given to students who complete the Advanced Engineering Program and meet the requirements set by the National Institution for Academic Degrees and Quality Enhancement of Higher Education Evaluation. The degree is equivalent to graduating from a university. After completing the advanced course, students may go on to work in the research, development, or technical departments of companies, or to graduate school at universities.

Advanced Program in the Production and Environment System

The advanced program of production and environment system provides expertise and techniques relevant to machine, electronic control, production system, and civil engineering and urban planning. We aim to educate practical and creative engineers who can conduct research and development in the fields of intelligent mechanical equipment, manufacturing systems, and infrastructure development.

Advanced program in the Electric and Information System

The advanced program of electric and information system provides expertise and techniques relevant to electronics, information, and electric power. We aim to nurture practical and creative engineers who can conduct research and development in the fields of electronic communication systems, and computer and information systems.

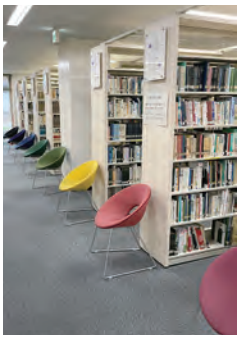
Off-campus Practical Training

National Institute of Technology, Nagano College's advanced courses offer 14 weeks of off-campus practical training as compulsory subject, which is rarely seen among universities and colleges of technology in Japan. In the second semester of the first year, students in the advanced courses engage in practical training, mainly at companies and government offices in Nagano Prefecture. In off-campus practical training, students learn and experience technical content over a long period, which helps them develop practical skills and learn things that are difficult to learn in a technical college setting, such as the reality of working in a company and the sense of responsibility that one should have as a member of an organization.

This 14-week off-campus practical training program has been highly regarded and was selected as the "Contemporary Educational Needs Support Program (Gendai GP)" by the Ministry of Education, Culture, Sports, Science and Technology in 2004 and 2005.

Facilities

❶ Library



The library is a comprehensive media center for education, research, learning, and preparation for higher education and employment. 2010 saw an earthquake-resistant renovation to make the space more comfortable. It is also open to the public.

- Facilities and Equipment
  Reading room area: 580 ㎡, 102 reading seats, 4 PCs, group work room, 1 AV booth (1 Blu-ray, 1 VHS player)
- Books, Materials, etc.
  The library has a collection of more than 80,000 books. Books and other materials can be searched through the online catalog (OPAC).

❷ Regional Collaboration Technology Center

The Regional Collaboration Technology Center was established in April 2000 to promote joint projects with local companies. It collaborates with various institutions to support joint projects with companies, joint research, and entrepreneurial projects.

❸ Information Education Center

The Information Education Center was established in February 1974 as the Computer Center for the purpose of fostering engineers who can play an active role in the information society. In addition to being used for students' information and educational activities, it also plays a role in promoting the information infrastructure and manages and operates the school's internal network.

❹ Technical Education Center

The Technical Education Center was established in 1998 as an intramural joint-use facility to enhance and develop manufacturing education and research activities and to contribute to the local community.

❺ Welfare Facility and Student Counseling Center

The first floor houses the school cafeteria and store, while the second floor houses the infirmary, the student counseling room, and a common room for extracurricular activities. At the Student Counseling Room, professional staffs (counselors, school social workers, nurses, faculty and staff) provide total support for a fulfilling student life by offering consultation on various obstacles, worries, and concerns that arise in student life.

❻ Student Dormitories

Dormitories are available on campus for students who have difficulty commuting from home. There are men's dorms, women's dorms, coed dorms (on separate floors), and international dorms. Each building has a common lounge, and each floor has a mini-kitchen with a microwave oven and induction cooker. There is also a cafeteria and bathrooms for the exclusive use of dorm residents.

Yufu-ryo (men's dormitory)

Seifu-ryo (women's dormitory)

Ōfu-ryo (international dormitory)

International Exchange Center

The International Center was established in April 2014 to foster an international mindset among students, faculty, and staff through exchanges with educational institutions around the world. The Center aims to nurture internationally minded individuals who are aware of cultural diversity and have an interest in exchanges with other countries.

Global Engineer Training Center

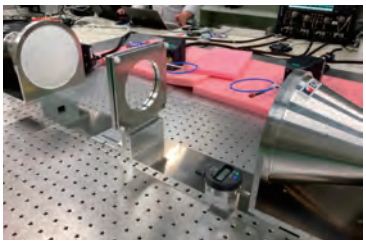
The Global Engineer Training Center was established in April 2020 to globalize the campus and improve students' communication skills.

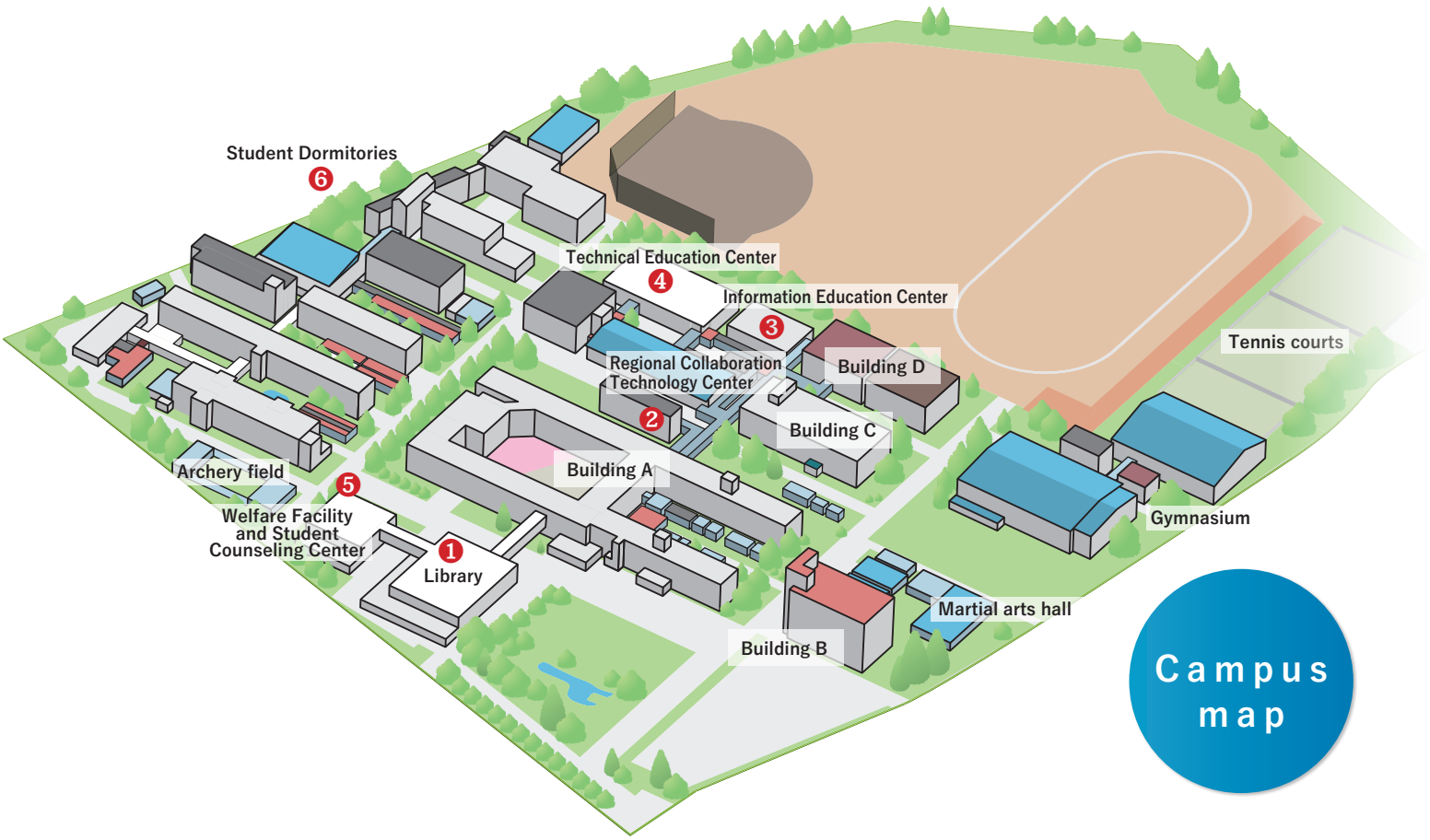
Social Innovation Support Center

The Social Innovation Support Center is an organization that supports student activities aimed at fostering an entrepreneurial mindset and solving social issues. In addition to supporting activities, the center is equipped with laboratories for prototyping and evaluation.

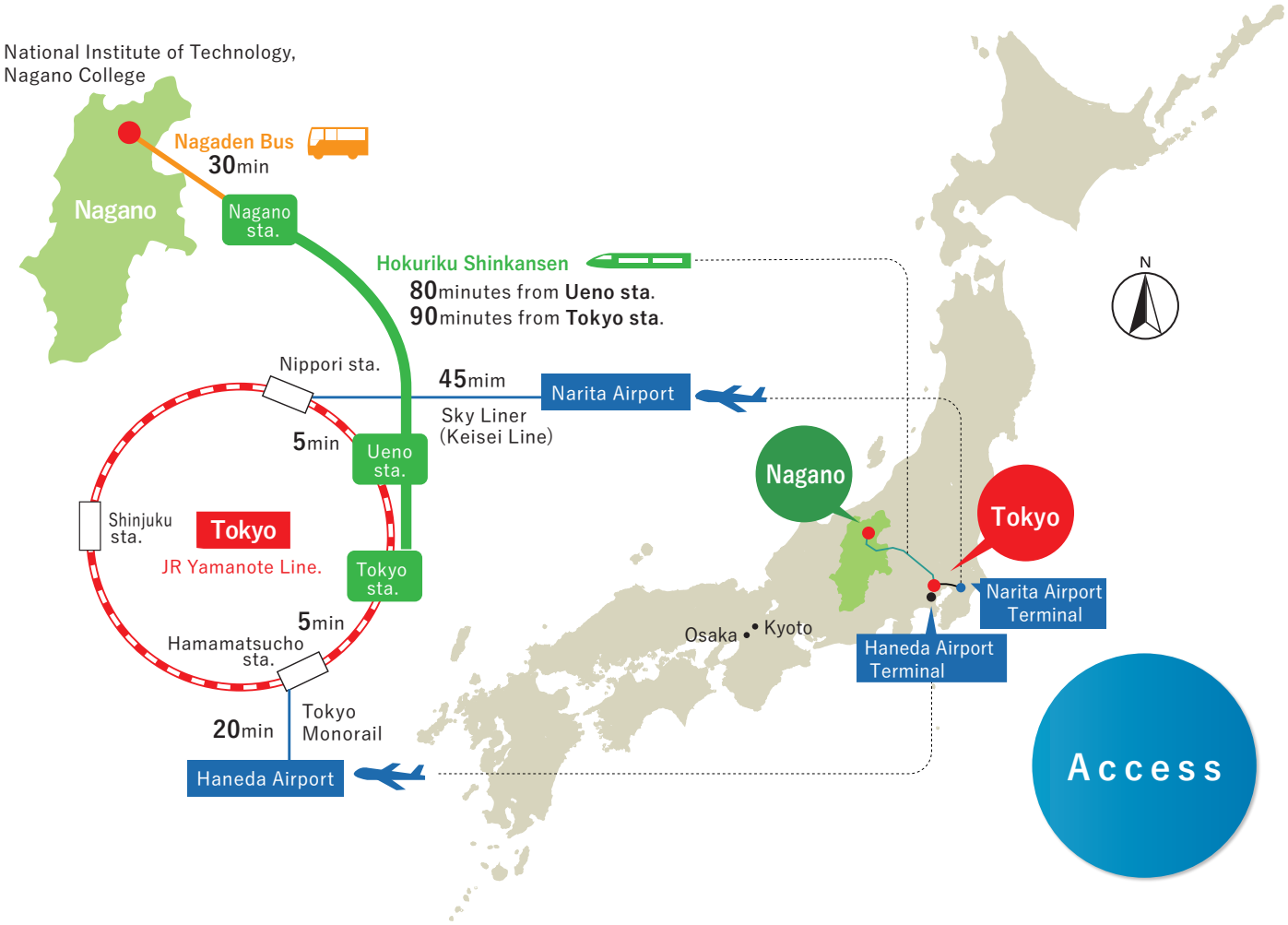
High-Speed Signal Transmission Evaluation Center

The High-Speed Signal Transmission Evaluation Center is equipped with signal transmission evaluation equipment up to 100 GHz, which is required in the "Beyond 5G/6G" era, electromagnetic material measurement equipment, CT-Scan for measuring mechanical structures and defects, and laser microscopes. The center makes its facilities widely available to the public and supports local industry through collaborative research.





Campus map



Access

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