

School Year 2023

Muroran Institute of Technology Guidebook

-Making Dreams Come True Through
Creative Science and Technology-



Contents

- 2 Principles and Goals · Educational Goals
- 3 Organization & Structure
- 8 Educational and Research Organizations
- 19 Featured Educational Programs
- 23 Lifelong Education

Facts and Figures

- 25 **University Officials**
- 25 Number of University Officials
- 25 Number of Researchers Employed
- 26 **Student Capacity and Enrollment**
- 26 Student Capacity and Current Enrollment
- 27 Admissions
- 28 Number of Degrees Awarded
- 28 Scholarship Students
- 29 Career Placement
- 29 Graduate Employment
- 31 **Coalition Agreements**
- 32 **International Exchange Activity**
- 32 International Agreements on Academic Exchange
- 33 Number of Students who Study Abroad
- 34 Current Enrollment of International Students
- 34 Transition of International Students Numbers
- 34 Current Employment of Foreign Researchers
- 35 **Library-Number of Books in Stock and Others**
- 36 **External Funds**
- 37 **Finances**
- 38 **Campus and Facilities**
- 38 Land and Buildings
- 39 Campus Map
- 40 **Access Map**

Academic Calendar

First Semester Begins	April 10
School Founding Day	May 22
Summer Vacation	August 11 – September 18
Campus Festival	September 16 - September 17
Second Semester Begins	October 2
Winter Break	December 28 - January 4
Spring Vacation	March 1 -
Graduation Ceremony	March 22

Message from the President

Educational capabilities based on well-established research expertise

Muroran Institute of Technology (MuroranIT) actively incorporates regional contributions as it promotes educational and institutional reform. This approach is based on the philosophy that addressing local problems in Hokkaido will make it possible to provide solutions to similar issues elsewhere in Japan and the world.

MuroranIT is renowned for its well-established research capabilities that support the superior level of education that is offered. According to the 2024 University Rankings by Asahi Shimbun Publications (published in April 2023), the University earned Japan's second highest citation index rating (Clarivate Analytics) in the area of computer science. This demonstrates an impressive number of citations per article (2017-2021) and represents the sixth consecutive year that the University has received a high evaluation. The Institute also earned Japan's highest citation index rating (Clarivate Analytics) in the area of mathematics (2017-2021)! It serves as welcome recognition indicating the superior quality of papers produced at MuroranIT in these fields, and its great impact on other researchers.

In October 2022, the Institute was included in the Times Higher Education (THE) World University Rankings (1501+) for the fifth consecutive year. THE evaluates academic institutions based on their research performance and other assessment metrics. In the engineering category, the University ranked 1001+ globally. In the QS Asia University Rankings 2023, another globally recognized university ranking system, MuroranIT ranked between 451st and 500th for the second year. Such proven research capabilities are utilized to enhance the Institute's graduate education. To develop our characteristics as a national technical university, we are promoting the enhancement of graduate school education based on our world-class research capabilities, and aim to achieve 50% advancement to the master's course. The accomplishments and strengths of MuroranIT are based on its diligent and dedicated faculty, its commitment to high-quality research, and the more than 40,000 alumni in meaningful employment. The University's accomplishments and strengths lie in its faculty's educational capabilities backed by solid evidence-based research, as well as the significant input alumni have in improving society.

MuroranIT values outcomes for faculty members and students alike. The achievements of the faculty members are particularly notable in terms of their contribution to science and technology in Hokkaido. The 2022 Hokkaido Science and Technology Incentive Award was presented to Associate Professor KANDA Yasuharu for his studies on the development of environmental catalysts to build a sustainable society. The 2023 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology – The Young Scientists' Award – was given to Professor OHTA Kaoru for her studies on achievements in next-generation information and communication networks that contribute to solving social issues.

This is just a sample of the awards and recognitions MuroranIT has received. Armed with solid research capabilities, the members of our specialist faculty are committed to teaching the intrinsic joy of science and engineering with the aim of nurturing and developing the intellectual capabilities of all students. The kind support and cooperation of everyone involved is truly appreciated.

KUGA Yoshikazu
President



Principles and Goals

-Making Dreams Come True Through Creative Science and Technology-

Principles

Muroran Institute of Technology (MuroranIT) will take advantage of the well-developed surrounding industrial environment of Muroran City, which is renowned for its innovative manufacturing and rich natural environment. MuroranIT will offer comprehensive science and technology education, and at the same time, engage in creative scientific and technological research considering the balance between humanity, society and nature, and contribute as a stronghold for the development of local and international knowledge in order to develop a well-rounded society in the future.

Goals

[Education]

- 1 The aim of MuroranIT is to improve the variety of talents inside of each student, to develop a broad-based education that promotes internationalism, and to cultivate abundant expert knowledge, and creativity through our education programs.
- 2 MuroranIT develops comprehensive education based on science and technology in order to train creative engineers who can open the way to the future.

[Research]

- 3 MuroranIT encourages the quest for knowledge and creative research activities, and contributes to the development of science and technology.
- 4 MuroranIT cherishes the global environment, and supports the expansions of research based on the balance between humanity, society and nature.

[Social and International Contribution]

- 5 MuroranIT shares the results of our academic research with the local and international community and promotes the link between industry, government and academia to develop a well-rounded society.
- 6 MuroranIT strongly promotes international collaborative research and academic exchange, and contributes to world development.

[Management]

- 7 MuroranIT aims to constantly develop and manage our university with the spirit of self-sufficiency and self-responsibility.
- 8 MuroranIT proactively releases information to show that it is an open university, and is accountable to society.

Educational Goals

Educational Goals for the Undergraduate Course

- 1) We will accept students who are motivated to make a contribution to society through science and engineering as well as to contribute to science and technology, and we will provide education that nurtures the numerous talents of students.
- 2) We will provide comprehensive scientific and technical education that is instructive for broad-based learning about basic information technology and specialized natural scientific and technical knowledge.

This will help to

- ① Train engineers and scientists who emerge with a well-rounded personality as a result of a broad-based education, and who have the ability to think from an international perspective with flexibility and who can get things done.
- ② Train creative engineers and scientists who have acquired specialized natural scientific and engineering knowledge, and can correctly apply such knowledge based on information technology, and actively familiarize themselves with new fields.
- ③ Train engineers and scientists who can think logically and share that logic accurately with others and who can communicate internationally and understand the opinions of others.
- ④ Train engineers and scientists who seek the best possible relationship between humanity, society, nature and scientific technology, and who have morality and social responsibility as creators who can practically use science and technology.
- ⑤ Train engineers and scientists who are always concerned about changes and developments in nature and human society, and who can improve their own abilities on a permanent basis.

Educational Goals for the Master's Course

We will develop the talents of each student, and through the cultivation of highly specialized learning and education with a broad outlook, train engineers who will contribute new technology to society.

- ① Train engineers with the ability to analyze and solve complex scientific and technical problems.
- ② Train engineers with the ability to research and deal with complex problems.
- ③ Train engineers with the ability to think logically and the ability to communicate internationally, particularly in their specialist field.

Educational Goals for the Doctoral Course

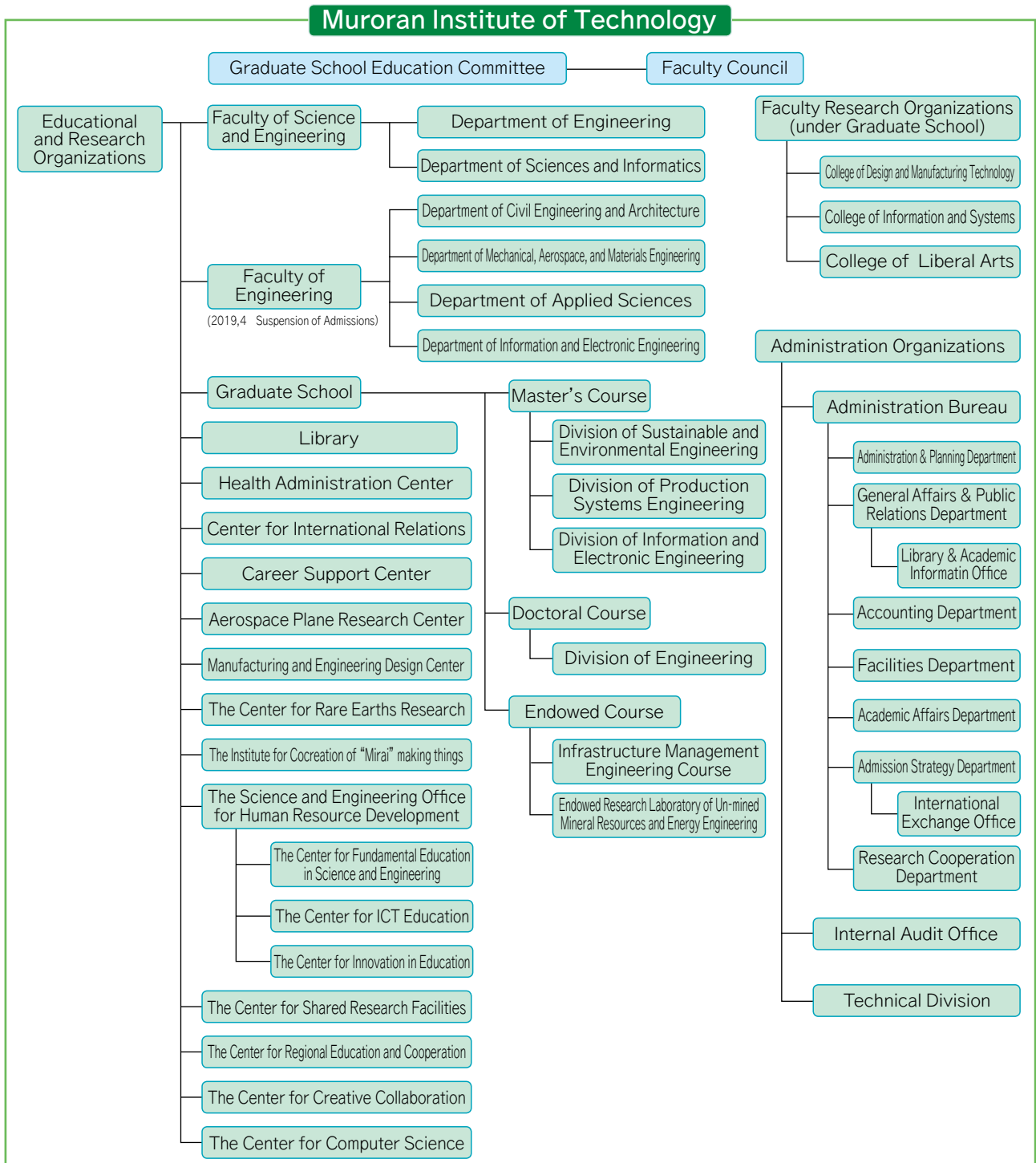
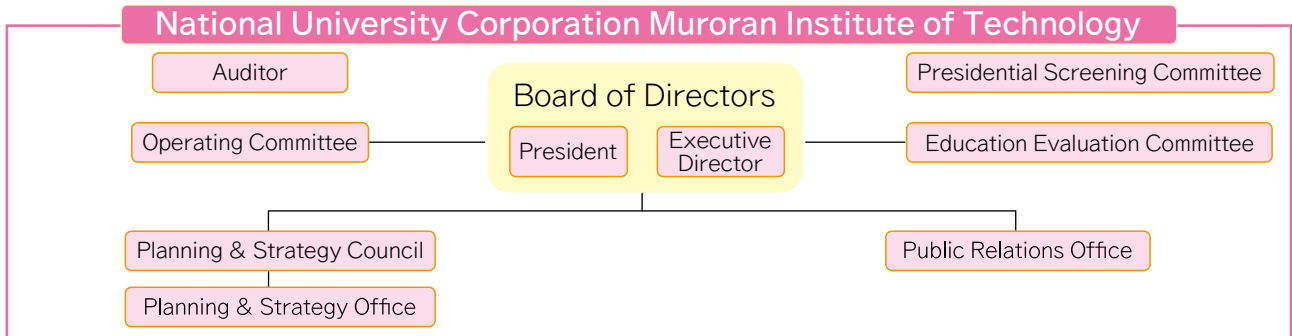
- 1) We will accept domestic/international students and other appropriate people working in technical/industrial fields, who have a wide-range of knowledge, an international point of view, high moral values, and who have the motivation to create knowledge and develop culture with strong research abilities in science and technology.
- 2) Provide science and engineering education as well as research guidance to train creative researchers and engineers with the high-level research ability necessary for independent research activities or other highly specialized operations, as well as fundamental knowledge of peripheral fields.

This will help to

- ① Nurture human resources with the ability to succeed internationally as leading researchers, engineers and scientists who have mastered advanced engineering technology.
- ② Nurture researchers and engineers with a versatile mental capacity and imagination, and the ability to gather and convey information internationally in response to the development and diversity of science and technology.
- ③ Nurture researchers and engineers with international communication skills.
- ④ Nurture researchers and engineers with high moral values and a global perspective.

Organization & Structure

■ Organizational Map



■ History

March	1887	Establishment of Engineering Department (4-year course) in Sapporo Agricultural College
June	1896	Abolition of Engineering Department (Student applications were halted in 1894)
May	1897	Establishment of Civil Engineering Department (3-year course) in Sapporo Agricultural College
June	1907	When Tohoku Imperial University was established in Sendai, Sapporo Agricultural College became a part of it, and along with it the Civil Engineering Department
April	1918	Name changed to Civil Engineering Special Division when the department was moved back to Hokkaido Imperial University
May	1939	Establishment of Muroran Engineering High School (Mechanics, Electricity, Industrial Chemistry, Mining, Metallurgy), the predecessor of Muroran Institute of Technology
April	1944	Name changed to Muroran School of Technology
April	1945	Establishment of Technical Teacher Training Center
May	1949	Establishment of Muroran Institute of Technology (by combining Muroran Engineering Technical School and Hokkaido University Civil Engineering Department) with four departments of Electrical Engineering, Industrial Chemistry, Mine Engineering, and Civil Engineering
April	1970	Establishment of Health Management Center
April	1990	Reorganization of the Undergraduate departments from Electrical Engineering, Industrial Chemistry, Development Engineering, Civil Engineering, Mechanical Engineering, Metallurgical Engineering, Chemical Engineering, Industrial Mechanical Engineering, Architectural Engineering, Electronic Engineering, Applied Physics, Mechanical Engineering Night Course, Electrical Engineering Night Course to Civil Engineering and Architecture, Mechanical Systems Engineering, Computer Science and Systems Engineering, Electrical and Electronic Engineering, Materials Science and Engineering, and Applied Chemistry Reorganization of the Master's Degree majors in the Graduate School of Engineering from Electrical Engineering, Industrial Chemistry, Development Engineering, Civil Engineering, Mechanical Engineering, Metallurgical Engineering, Chemical Engineering, Industrial Mechanical Engineering, Architectural Engineering, Electronic Engineering, Applied Physics, and Energy Engineering to Civil Engineering and Architecture, Mechanical Systems, Computer Science and Systems Engineering, Electrical and Electronic Engineering, Materials Abolition of Technical Teacher Training course in a related move Establishment of Doctoral Degree in the Graduate School of Engineering with courses in Civil and Environmental Engineering, Production and Information Systems Engineering, Chemical and Materials Engineering
April	2004	Establishment of Muroran Institute of Technology as a national university corporation
March	2005	Establishment of Aerospace Plane Research Center
April	2005	Establishment of Career Support Center
January	2006	Establishment of Manufacturing and Engineering Design Center
April	2007	Establishment of Center for International Relations
April	2009	Establishment of Faculty Research Organizations in the areas of Environmental Technology, Design and Manufacturing Technology, Information and Systems and Liberal Arts The undergraduate departments of Civil Engineering and Architecture, Mechanical Systems Engineering, Computer Science and Systems Engineering, Electrical and Electronic Engineering, Materials Science and Engineering were reorganized into the departments of Civil Engineering and Architecture, Mechanical, Aerospace, and Materials Engineering, Applied Sciences, and Information and Electronic Engineering The Master's Degree divisions of Civil Engineering and Architecture, Mechanical Systems Engineering, Computer Science and Systems Engineering, Electrical and Electronic Engineering, Materials Science and Engineering were reorganized into the divisions of Civil Engineering and Architecture, Mechanical systems and Materials, Applied Sciences and Information and Electronic Engineering The Doctoral Degree divisions of Civil and Environmental Engineering, Production and Information systems Engineering, Chemical and Materials Engineering, and Science for Composite Functions were reorganized into the divisions of Architecture, Civil and Environmental Engineering, Production and Information Systems Engineering, Aerospace Engineering, Chemical and Materials Engineering, and Engineering for Composite Functions
October	2012	Establishment of Research Center for Environmentally Friendly Materials Engineering
April	2014	Reorganization of the Master's Degree divisions from Civil Engineering and Architecture, Mechanical systems and Materials, Applied Sciences and Information and Electronic Engineering to Sustainable and Environmental Engineering, Production Systems Engineering and Information and Electronic Engineering Unification of the Doctoral Degree divisions from Architecture, Civil and Environmental Engineering, Production and Information Systems Engineering, Aerospace Engineering, Chemical and Materials Engineering, and Reorganization of Engineering for Composite Functions to Engineering
April	2018	Reorganization of the Office for Community Engagement and Collaboration under which the Center for Regional Education and Cooperation and the Center for Cooperative Research and Development are established
October	2018	Establishment of the Center for Creative Collaboration under the Office for Community Engagement and Collaboration
April	2019	Reorganization of the undergraduate departments of Civil Engineering and Architecture, Mechanical, Aerospace, and Materials Engineering, Applied Sciences, and Information and Electronic Engineering in the Faculty of Engineering to the departments of Engineering, and Science and Informatics in the Faculty of Science and Engineering Reorganization of the Center for General Education and Center for Multimedia Aided Education to the Science and Engineering Office for Human Resource Development, under which the Center for Fundamental Education in Science and Engineering, the Center for ICT Education, and the Center for Innovation in Education are established
October	2019	Name of Research Center for Environmentally Friendly Materials Engineering changed to the Center for Rare Earths Research
April	2020	Establishment of the Center for Shared Research Facilities
April	2023	Establishment of the Institute for Cocreation of "Mirai" making things, the Center for Regional Education and Cooperation, the Center for Computer Science

1887 Sapporo Agricultural College
Engineering Department



Sapporo Agricultural College
Engineering Department

1897 Sapporo Agricultural College
Civil Engineering Department



Tohoku Imperial University

1907 Tohoku Imperial University

1918 Hokkaido Imperial University
Attached Civil Engineering
Special Division



Hokkaido Imperial University Attached
Civil Engineering Special Division

1939 Muroran Engineering
High School



Muroran Engineering High School

1944 Muroran School of
Technology



Muroran School of Technology

1949 Muroran Institute of
Technology

Electrical Engineering
Industrial Chemistry
Mine Engineering
Civil Engineering



Panoramic View of
Muroran Institute of
Technology

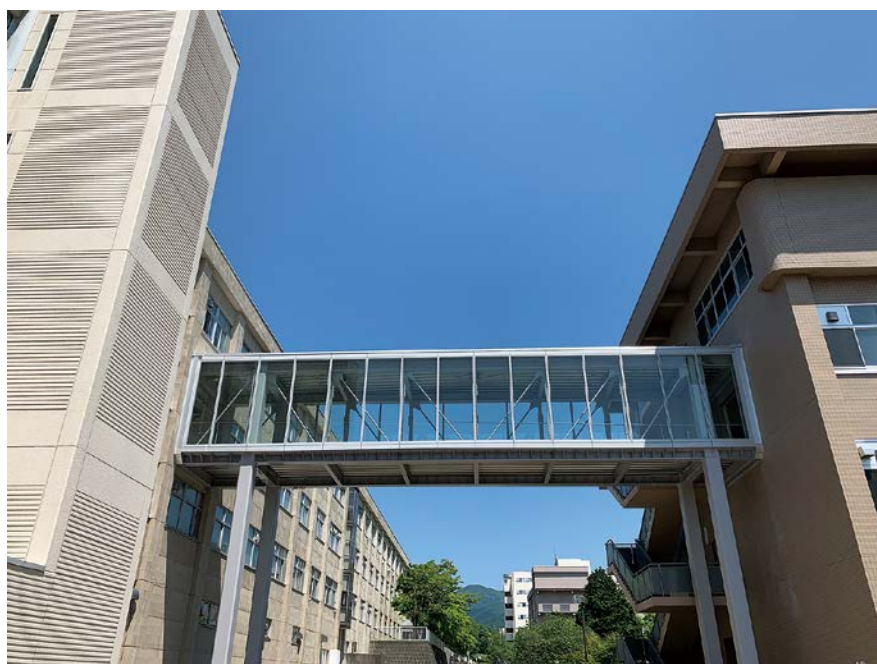
2004 Muroran Institute of Technology
as a National University Corporation



Main Gate of Muroran Institute of
Technology

■ Former Presidents

	Term of Office	Name
Muroran Engineering High School	May 1939- Oct. 1943 Oct. 1943- Mar. 1944	YOSHIMACHI Taroichi MORI Keisaburo
Muroran Engineering Technical School	Apr. 1944- Aug. 1948 Aug. 1948- May 1949	MORI Keisaburo IGUCHI Shikazo
Muroran Institute of Technology	May 1949- Mar. 1956 Mar. 1956- May 1956 May 1956- May 1960 May 1960- Nov. 1967 Nov. 1967- Feb. 1968 Mar. 1968- May 1970 May 1970- Mar. 1971 Apr. 1971- Mar. 1975 Apr. 1975- Mar. 1979 Apr. 1979- Mar. 1983 Apr. 1983- Mar. 1991 Apr. 1991- Mar. 1997 Apr. 1997- Oct. 1997 Oct. 1997- Jan. 1998 Feb. 1998- Mar. 2004	IGUCHI Shikazo SAEKI Rikichi (acting) OHGA Tokuji OHTSUBO Kikutaro SAWA Shigeo (acting) ABE Okito ICHIBA Kumi (acting) KANAMORI Shoichi TAKEUCHI Sakae YOSHIDA Masao KOBAYASHI Haruo ARAKAWA Taku IZUMI Kiyoto MATSUOKA Kenichi (acting) TAGASHIRA Hiroaki
National University Corporation Muroran Institute of Technology	Apr. 2004- Jan. 2006 Feb. 2006- Mar. 2009 Apr. 2009- Mar. 2015 Apr. 2015- Present	TAGASHIRA Hiroaki MATSUOKA Kenichi SATO Kazuhiko KUGA Yoshikazu



Education Research Building #1-3, connecting corridor “Soramichi”

■ University Executives and Staff

President	KUGA Yoshikazu
Executive Director/ Vice President	MATSUDA Mizushi
Executive Director/ Vice President	SATOH Kohki
Executive Director/ Vice President	FUNAMIZU Naoyuki
Auditor	TAKAHASHI Nobuo
Auditor	MASUE Asao

Administration Bureau

General Manager	OHKAWA Tetsuya
Deputy General Manager	NAGAKAWA Hideki
Administration & Planning Department Manager	SHIBATA Jun
General Affairs & Public Relations Department Manager	YAMAMOTO Wataru
Accounting Department Manager	IWABE Jun
Facilities Department Manager	OSHIDA Satoshi
Academic Affairs Department Manager	SENDAI Tsuneya
Admission Strategy Department Manager	AIUCHI Seiya
Research Cooperation Department Manager	ITOH Mitsuharu

University Centers

Director of Library	SATOH Kohki
Director of Health Administration Center	IWATA Minoru
Director of Center for International Relations	KOHATA Yukihiro
Director of Career Support Center	AIZU Yoshihisa
Director of Aerospace Plane Research Center	UCHIUMI Masaharu
Director of Manufacturing and Engineering Design Center	SHIMIZU Kazumichi
Director of the Center for Rare Earths Research	SEKINE Chihiro
Director of the Institute for Cocreation of "Mirai" making things	KUGA Yoshikazu
Head of the Science and Engineering Office for Human Resource Development	MATSUDA Mizushi
Director of the Center for Fundamental Education in Science and Engineering	MATSUDA Mizushi
Director of the Center for ICT Education	KUWATA Yoshitaka
Director of the Center for Innovation in Education	MOMONO Naoki
Director of the Center for Shared Research Facilities	NAKANO Hideyuki
Director of the Center for Regional Education and Cooperation	KAWAI Hideki
Director of the Center for Creative Collaboration	TOKURAKU Kiyotaka
Director of the Center for Computer Science	OTA Kaoru
Director of Technical Division	SATOH Kohki

Vice President	OHKAWA Tetsuya
Vice President	MOMONO Naoki
Vice President	KOHATA Yukihiro
Vice President	SHIMIZU Kazumichi
Vice President	DONG Mianxiong

Faculty of Science and Engineering

Undergraduate Course

Director of Department of Engineering	TERAMOTO Koji
Director of Department of Sciences and Informatics	SHIOYA Hiroyuki

Graduate School

Master's Course

Director of Division of Sustainable and Environmental Engineering	ICHIMURA Koji
Director of Division of Production Systems Engineering	EBISU Shuji
Director of Division of Information and Electronic Engineering	WATANABE Kota

Doctoral Course

Director of Division of Engineering	MATSUDA Mizushi
--	-----------------

Research Organization

Director of College of Design and Manufacturing Technology	IMAI Ryoji
Director of College of Information and Systems	CHANG Young-Cheol
Director of College of Liberal Arts	MAEDA Jun

Educational and Research Organizations

■ Faculty of Science and Engineering

Departments	Educational and Learning Objectives	Content
Department of Engineering	<p>[Overall] The Department of Engineering is responsible for the education of specialized engineering that is connected directly to industrial applications, for example, architecture, civil engineering, mechanical engineering, robotics, aerospace engineering, electric engineering, electronics, communication engineering, and so on. The word, "engineering" implies creativity, the so-called new trend of "Monozukuri," which will be required in the fields of manufacturing and construction in the future era. The department nurtures personnel who understand the industrial structure of the regional community, including Hokkaido; the characteristics of nature and the urban environment; the principles and properties of production activities; and who have developed their abilities in applying and utilizing their knowledge of their surrounding society from an engineering standpoint. The Department of Engineering not only offers a daytime course but also an evening course.</p>	<p>The Department of Engineering provides fundamental knowledge of natural science, engineering, and informatics in core curriculum for one year and a half after entering into the university. At the beginning of the second semester in second year, the students participate in specialized courses and acquire technical knowledge and practical skills. At the same time, a liberal arts educational component fosters development in the humanities and an ability to collaborate with others.</p>
Daytime Courses	<p>[Course of Architecture and Civil Engineering] This course provides practical education on the planning, design, and construction technology of architectural facilities or larger structures, such as roads, bridge, parks, dams, etc. The course nurtures personnel who can contribute to the production of a safe and comfortable environment with a broad perspective, encompassing spiritual enrichment through nature.</p> <p>[Course of Robotics and Mechanical Engineering] This course provides a practical education about mechanical engineering and robotics and nurtures personnel who acquire extensive fundamental knowledge, advanced practical skills, and the creativity and strength to confront various kinds of problems by utilizing their communication abilities.</p> <p>[Course of Aerospace Engineering] Aerospace Engineering is a comprehensive engineering course that utilizes and consolidates a variety of components and elements of related technologies and builds highly sophisticated systems. This course provides practical education in a wide range of elemental and system technologies and nurtures human resources capable of systematic thinking for sophisticated manufacturing in a broad range of fields.</p> <p>[Course of Electrical and Electronic Engineering] This course provides fundamental knowledge and skills in areas such as electron devices, electronic technologies, electrical energy generation, supply and utilization, system control, etc.</p>	<p>[Course of Architecture and Civil Engineering] This course mainly provides systematic education in the field of architecture and civil engineering. In the first half of the second semester in the second year, the students will study introductory subjects and core curriculums about architecture and civil engineering. After the second half of the second semester in the second year, the curriculum of the course is divided into an architecture track and a civil engineering track. The architecture track is mainly organized by subjects for eligibility requirements, such as architectural planning and design, building construction and material, etc. The civil engineering track is organized by subjects about specialized technology regarding planning, design, and construction of civil engineering structures.</p> <p>[Course of Robotics and Mechanical Engineering] This course provides a practical education to foster fundamental knowledge and advanced practical skills about the environment and energy, mechanical systems, and robotics. The course is organized by subject groups, such as the dynamical system group that is the basis of mechanical engineering, the system integration group connecting with robotics, and the engineering design group related to system design and manufacturing.</p> <p>[Course of Aerospace Engineering] This course provides integrated education in the field of aerospace engineering to nurture a systematic way of thinking and a specialized education emphasizing fundamental technologies of sophisticated systems. The course is organized around the fundamental disciplines of aerospace engineering, which is an integration of various elements and technologies, and an intensive research study is offered to foster knowledge and practical skills.</p> <p>[Course of Electrical and Electronic Engineering] This course is organized to provide specialized knowledge of electrical and electronic engineering, including electron devices, electronic circuits, computer engineering, signal processing, communication systems, quantum measurements, generation and supply of electric energy, control of various systems, etc.</p>
Evening Courses	<p>[Course of Mechanical Engineering] This course provides education about mechanical engineering and related areas, such as robotics and aerospace engineering. The course nurtures human resources capable of playing an active role in various fields of manufacturing from a broad perspective.</p> <p>[Course of Electrical and Electronic Engineering] This course provides fundamental knowledge and skills in areas such as electronic devices, electronic technologies, electrical energy generation, supply and utilization, system control, etc.</p>	<p>[Course of Mechanical Engineering] The foundation of this course is mechanical engineering, and its principal axis consists of subject groups such as dynamical systems, system integrations, and experiments. The curriculum of the course is systematically organized by mechanical engineering and its related areas, such as robotics, aerospace engineering, and electrical and electronic engineering.</p> <p>[Course of Electrical and Electronic Engineering] This course is organized to provide specialized knowledge of electrical and electronic engineering, including electron devices, electronic circuits, computer engineering, signal processing, communication systems, quantum measurements, generation and supply of electric energy, control of various systems, etc.</p>

Departments	Educational and Learning Objectives	Content
<p>Department of Sciences and Informatics</p>	<p>[Overall] The Department of Sciences and Informatics strives to create new value for developing industry and enhancing productivity based on scientific approaches as well as to construct systems useful for “Monozukuri” (the craftsmanship of Japanese manufacturing) to lead the way to a prosperous future society. One objective of education in this department is to furnish students with an inquisitive mind to elucidate and systematize the principles of natural and social resources (i.e., the ability to discover and develop untapped industrial potential).</p> <p>[Course of Physics and Materials Sciences] The objective of this course is to provide students with a broad understanding of fundamental physics as the foundation of the natural sciences. This course also covers materials science and informatics as applications of physics. Our goal is to foster scientists and engineers with a strong exploratory mind who will contribute to clarifying the mechanisms of nature and who can create new functional materials that will help solve both global and local societal issues.</p> <p>[Course of Chemical and Biological Systems] This course is focused on not only natural sciences such as chemistry and biology but also chemical engineering sciences in conjunction with informatics. This enables us to nurture inquisitive scientists and engineers who can contribute from an extensive scientific perspective to the creation and globalization of regional industries utilizing chemical and biological materials.</p> <p>[Course of Mathematical Science and Informatics] We train our students to become scientists and engineers with broad viewpoints on natural science, problem-solving abilities in local/global fields, and the spirit of inquisitiveness. This is achieved by teaching computer science as the mathematical basis for informatics and information engineering as the application of informatics in various scientific fields.</p>	<p>This department provides an education program combining natural science and informatics. The primary fields of natural science are mathematics, physics, chemistry and biology, while informatics deals with data processing and information systematizing intended for nature and society. The department offers courses on Physics and Materials Sciences, Chemical and Biological Systems, and Mathematical Science and Informatics. These three courses provide students with a systematic and professional education culminating with graduation research.</p> <p>[Course of Physics and Materials Sciences] This course systematically provides students with a comprehensive overview of physics and materials science; typical topics include quantum mechanics, statistical mechanics, condensed matter physics and laser physics. These are aimed at honing the ability to understand the intrinsic nature and structure of materials on an atomic scale, leading to the creation of new functional materials and leading-edge technology. To utilize extensive knowledge of physics and materials science for applications, students are also provided with basic knowledge of and skills in information technology through experimental and exercise subjects including graduation research.</p> <p>[Course of Chemical and Biological Systems] This course provides education on chemistry and biology, which deal with material and life phenomena, respectively. Additionally, informatics is used to produce a comprehensive understanding of phenomena and the potential creation of useful materials. Chemistry and biology are taught according to four categories; physical chemistry, inorganic and analytical chemistry, organic chemistry, and biochemistry and biology. The knowledge obtained through classes on informatics is then utilized and developed in the application field (i.e., process production science).</p> <p>[Course of Mathematical Science and Informatics] The course provides education on the principles, techniques and applications of informatics for analyzing and processing a variety of information in nature and society, systematically. This curriculum consists of mathematics (e.g., algebra, probability theory and statistics, applied mathematics, discrete mathematics), data structures and algorithms, programming languages and databases among other related lectures with various relevant exercises.</p>

■ Graduate School

Master's Course

Divisions	Courses
<p>Division of Sustainable and Environmental Engineering</p>	<p>This division incorporates a broad spectrum of content that covers various engineering fields related to the environment, enabling students to create a sustainable society in harmony with the surrounding environment.</p> <p>[Course of Chemical and Biological Engineering] In this course students will acquire fundamental knowledge in chemistry and biology. They will study the substances that form living organisms including humans and the surrounding living and natural environments through chemistry. They will also learn about the workings of life through biology. They will be educated to have the ability to leverage the above knowledge from the perspectives of engineering to meet the demand of the times with the recognition of social responsibilities, and to contribute to the construction of a sustainable society with the aid of information technology.</p> <p>[Course of Architecture and Building Engineering] In this course, students will master advanced specialized knowledge relating to the planning and design of architecture and urban spaces, as well as architectural design, construction equipment and construction implementation geared to the development of safe buildings. To that end, we cultivate engineers in the field of construction with strong ethical perspective who can respond promptly and effectively to the needs of the times.</p> <p>[Course of Civil Engineering] In this course, students will master urban planning and disaster prevention systems, with the aim of creating environments in which we can live safely, securely and comfortably. After finishing this course, students will be able to respond promptly and effectively to the needs of the times, as civil engineers with a strongly ethical perspective.</p>
<p>Division of Production Systems Engineering</p>	<p>This division covers a broad range of content, from fundamental technologies such as material, mechanical and physical engineering, which are essential to manufacturing, to advanced systems technologies such as aerospace systems and next-generation robots.</p> <p>[Course of Robotics and Mechanical Engineering] Mechanical engineering and robotics cover environmental and energy technologies, materials and machining, manufacturing and production, elements and systems, control and measurement, design and informatics, which take the central role in fundamental engineering bringing not only in a diverse range of manufacturing and industrial sectors, but also safe and secure society and life. Students will learn to apply advanced and specialized knowledge of mechanical engineering and robotics, and will ultimately emerge ready to expand the boundaries of cutting-edge manufacturing and industry and take these fields to new heights and contribute to realize a sustainable society.</p> <p>[Course of Aerospace System Engineering] Aerospace system engineering can be applied in the engineering strategies for the realization of Society 5.0, as well as being a key technology field. Engineers in this field create sophisticated and comprehensive systems that include a broad range of state-of-the-art technologies such as aerodynamics, propulsion engineering, structure and materials engineering, guidance and control, amongst myriad others. This includes systems designed to function in environments far harsher than our terrestrial environment. Students will gain a thorough understanding of the interrelationship between systems and their enabling technologies, with the ultimate aim of establishing concrete aerospace systems. In addition, they will master fundamental knowledge of various enabling technologies and acquire the skills to build advanced systems that integrate these technologies. In order to cultivate high-level, specialized engineers and researchers ready to serve as effective team players on the global front, we work with JAXA, private companies, and other external organizations and make full use of the geographical advantages of Hokkaido, creating coursework that utilizes a diverse spectrum of research facilities in both the academic and non-academic realms, such as the Aerospace Plane Research Center. Through these curricula, we educate students in cutting-edge research that will give them access to countless career paths, while cultivating human resources.</p> <p>[Course of Physics and Materials Science] It is required to solve environmental and energy problems and realize a sustainable society. Technological innovations based on materials science have the potential to solve these problems drastically. In this course, students will systematically acquire specialized knowledge in materials science, particularly in the areas of condensed matter physics and materials engineering related to electronic functional materials such as magnetic, dielectric, superconducting, and optical materials, in addition to various structural materials, which support today's industrial technology. Through these curricula, we cultivate human resources who have a high-level awareness of the issues and the ability to analyze and solve advanced problems with the aim of developing new materials and next-generation advanced materials that will lead to technological innovation.</p>
<p>Division of Information and Electronic Engineering</p>	<p>In these courses, students master a variety of technological systems pertaining to information and electronics, using mathematical techniques as a foundation.</p> <p>[Course of System Informatics] This course provides students with advanced, specialized knowledge pertaining to information engineering, such as algorithms, computer architecture, software engineering, information networks, visual information processing, recognition and learning, and artificial intelligence, as well as the ability to analyze information based on mathematical models.</p> <p>[Course of Electrical and Electronic Engineering] This course provides students with specialized capabilities relating to the generation, supply and effective utilization of electrical energy, communication theory, signal processing and communication system for information transmission, control theory for robots and production technology, electric material, technology of electric device for fabricating integrated circuits, specialized skills of measurement using photo-electromagnetic phenomena and quantum effect, information processing, and intelligent informatics.</p>

Doctoral Course

Division	Courses
<p>Division of Engineering</p>	<p>This division encompasses the entire spectrum of engineering, and emphasizes the cultivation of innovative doctoral graduates who are able to respond flexibly to changes in research fields engendered by advances in science and technology as well as to the needs and wants of companies involved in a broad spectrum of related fields.</p> <p>[Course of Advanced Sustainable and Environmental Engineering] This course covers a broad range of sustainable environmental engineering fields, with the aim of building a sustainable society in harmony with the surrounding environment that incorporates changes in the natural and social environments.</p> <p>[Course of Advanced Production Systems Engineering] This course covers aerospace planes and next-generation robots incorporating sophisticated system technologies, and in the fields of advanced mechanical engineering, advanced material engineering and physical engineering, which support this research and technology.</p> <p>[Course of Advanced Information and Electronic Engineering] This course covers the fields of information engineering and electrical/electronic engineering relating to intelligence and informatics systems, electrical and communication systems, and electron devices and instrumentation, which create social and engineering functions with high value.</p>

Research Areas (Faculty Research Organizations)

Areas	Content of Research
<p>College of Design and Manufacturing Technology</p>	<p>The College of Design and Manufacturing Technology conducts research in the fields of 1) architecture, building and civil engineering, 2) robotics, mechanical and aerospace engineering, 3) electrical and electronic engineering.</p> <ol style="list-style-type: none"> 1) The research field of architecture, building and civil engineering covers the planning, designing and construction of cities and living atmospheres. In particular, examples of research include the research and development of the control and construction of living environments, the construction, maintenance and disaster prevention of infrastructure including buildings and underground facilities, and the planning, designing and construction of cities and living areas where people can live comfortably and with peace of mind. 2) The research field of robotics, mechanical and aerospace engineering includes designing, manufacturing and operating devices and equipment, including various transport machineries such as cars, railways and aerospace crafts, robots, and medical equipment. Furthermore, as well as systems research, this field covers materials and element technologies, including electronic and hydraulic controlling technology. 3) In the research field of electrical and electronic engineering, research on electrical and communication engineering is undertaken that covers electric energy and grid, communication devices and network systems, and control of those systems. Research on electron device and instrumentation that covers electronic materials, optical and quantum devices, and measurement systems is also developed. <p>Units: Architecture and Building Engineering Research Unit Civil Engineering Research Unit Robotics and Mechanical Engineering Research Unit Aerospace System Engineering Research Unit Electrical and Electronic Engineering Research Unit</p>
<p>College of Information and Systems</p>	<p>This research area broadly promotes research in the fields relating to physics, materials, chemistry, biotechnology, and informatics, ranging from the basics to applications for the creation of a new era. It consists of four research fields: the physics field researching development of new substances, new functional materials, and their foundation; the materials science field studying various metal materials applying environmental technologies and nanotechnologies; the chemistry and biotechnology field researching the optimization of chemical processes and the synthesis of high-value compounds by advanced chemical reactions and biological functions; and the informatics fields investigating the system intelligence based on neuroscience, a fusion of the media, humans, and systems, as well as abstraction, integration, and visualization of information.</p> <p>Units: Physics and Materials Science Research Unit Chemical and Biological Engineering Research Unit System Informatics Research Unit</p>
<p>College of Liberal Arts</p>	<p>The College of Liberal Arts aims to fosters students' interests in and understanding of non-engineering topics. The aim of the College is to provide a liberal arts education that nurtures students with a rich sense of humanity who can continue to learn throughout their lives. The College consists of four major fields; 1) the entrancing world of "numbers", focusing on mathematical analysis, algebra, and geometry; 2) information media studies to understand education and system formation; 3) linguistics and inter-cultural studies; and 4) humanities, medical care, social structures, and policies for civil society.</p> <p>Units: Mathematical Science Research Unit Humanities and Social Sciences Research Unit Linguistic Science and International Relations Research Unit</p>



Future image of Muroran City in 2060

Library

The university library, which is also widely open to the local community, maintains and provides books, journals, electronic journals, databases and other resources for study, research and learning. In recent years, the facility has undergone a number of upgrades, including the development of a learning commons and self-study facilities, single-person rooms for conferencing and interviews, enhancing wireless LAN access points and other elements of information provision. Shared student spaces have also been thoughtfully developed. The Academic Resources Archive of Muroran Institute of Technology run by the library has also been developed as an institutional repository publicizing the results of university research and serving as a place for the collection and provision of intellectual information in line with the university's responsibilities.



MuroranIT Library-a facility for learning and study

Health Administration Center

The Health Administration Center was established in 1970 by the Ministry of Education, Science and Culture, as a facility to promote health, to prevent and help in the early detection of diseases, and to provide first-aid treatment for students and faculty of the University. Medical staff consisting of a doctor, a school nurse, a counselor and administrative staff work here.

Operations:

- (1) Conduct annual and unscheduled health check-ups
- (2) Conduct health consultations and provide initial medical care and treatment and first-aid for injuries, etc.
- (3) Conduct research studies on health management and advice for health care
- (4) Conduct mental health consultations and provide counseling
- (5) Issuance of physical examination reports
- (6) Use measuring devices (height and weight scales, blood pressure meters, vision meters, etc.)
- (7) Lend the supplies (crutches, ice bag, ankle sprain supporter, thermometer, etc.)
- (8) Provide information on health
- (9) Health education: AED training, CPR training, etc.
- (10) Referral to other medical institutions (e.g., general hospitals)



The front of Health Administration Center

Center for International Relations

The Center for International Relations has been in charge of organizing and facilitating MuroranIT's international activities and cooperation for its students as well as its faculty and staff since it was established in 2007. The Center offers comprehensive services regarding a wide range of international relations such as sending Japanese students abroad for their international studies, accepting foreign students with suitable care and support, and promoting international collaborations in research and education with overseas universities.



Ski tour for international students

Career Support Center

The Career Support Center provides a variety of support to help students achieve their desired career paths. In addition to lectures, Career Design, to support student's career formation, the Center provides individual career guidance and consultation, advises students on proceeding to graduate school and holds information seminar, treats information on job applications, holds various guidance sessions, and holds joint meetings on industry research and the other employment-related events.

To think about your career path, to plan your future goals, and to take action to achieve them are all very time-consuming and labor-intensive processes. The Career Support Center is here to help you tackle your career with a positive attitude.

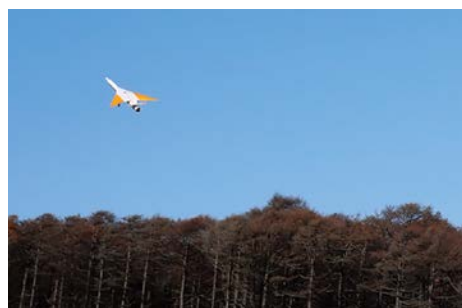
Please feel free to visit us.



Career Support Center

The Aerospace Plane Research Center (APReC)

The Aerospace Plane Research Center (APReC) was established to produce basic core technologies for flying at high speed and high altitude in the atmosphere. The APReC has some test facilities for aerospace field research such as rocket engine firing test equipment, a supersonic wind tunnel and, the only high-speed rocket sled track in Japan. Many collaborative research projects are being conducted using these facilities at the Center.



Flight test of a 1/3 scale small unmanned supersonic experimental aircraft (total length about 2 m) (November 2019, Taiki-cho Runway)

Manufacturing and Engineering Design Center

The Center provides support for practical lessons in manufacturing and engineering and extracurricular activities. It also promotes research in leading-edge manufacturing technology and regional cooperation regarding manufacturing. The Center, established in 2006, consists of three groups: Education Support Group, Fundamental Manufacturing Research Group, and Regional Cooperation Group. It is equipped with a seminar training room which students can use freely, a multi-purpose workshop, a machining workshop, a welding workshop, a casting and forging workshop and a “*tatara*” workshop where an ancient style of iron making can be experienced.



Front view of the Center

The Center for Rare Earths Research (Muroran Materia)

The Center conducts research on the effective utilization of rare earths. Furthermore, this Center is the driving force behind an education program. This program is designed to provide graduate students from various disciplines with a well-developed professional education and advanced professional skills. Besides this, the Center engages in the following activities, 1) establishing research collaborations with external research institutes and 2) hosting lectures and workshops on rare earths.



Recycled neodymium glass produced by the Center

The Institute for Cocreation of “Mirai” making things

With a goal to realize the "President's Vision" and the "Research vision for Hokkaido making things 2060" advocated by MuroranIT, The Institute for Cocreation of “Mirai” making things is designed to foster an emerging group which will play a pivotal role in future society, actively promote organization-to-organization co-creation relationship, generate a new collaboration platform and lead the building of an ecosystem.

The Institute consists of three offices with varying contributing functions for building the ecosystem in addition to the Agile Task Force that excels in flexibility and mobility.

- 1) Regional Co-creation Office (development and management of co-creation strategy)
- 2) Liaison Office (liaison, matching of needs and seeds)
- 3) Public Relations Office (social impact transmission, science communication).



Signing of MOUs for comprehensive cooperation

The Science and Engineering Office for Human Resource Development

This Office aims to provide students with a basic engineering education in physics, chemistry, biology, mathematics and other subjects as well as to enhance education on cyber security, programming, big data, artificial intelligence (AI), Internet of Things (IoT) and other important fields of study for today's complex and highly advanced information society.



Education Research Building #3, a base for fundamental engineering education related to human resources development in science and engineering

The Center for Fundamental Education in Science and Engineering

This Center was established to define a system for responsibility within the liberal arts and basic science and engineering education programs as well as to examine and research the role and substance of common education for faculties and departments while simultaneously enhancing it. This Center is responsible for the following operations:

- (1) Matters relating to liberal arts education and basic science and engineering education
- (2) Matters relating to subject-specific education in cooperation with the local community
- (3) Matters relating to education for teacher training courses
- (4) Matters relating to education for the consortium of national universities in Hokkaido for liberal arts education
- (5) Matters relating to education for common subjects in the graduate courses
- (6) Matters relating to education for the MOT program
- (7) Other matters relating to basic science and engineering education

In addition, it has its own operating committee for the improvement of communication and coordination between departments.



Regional Cooperation Course and lectures by famous entrepreneurs and economic experts in Hokkaido

The Center for ICT Education

The Center for ICT Education consists of the ICT Education Section and Information Infrastructure Section. The Center provides ICT education, such as Information Security, Data Science, and Programming. The Center is actively leading the support of the engineering education and campus network and promoting information systems. The Information Infrastructure Section maintains ISMS and BCMS certification.



Exercise in Classroom C310

The Center for Innovation in Education

The Center is an organization that flexibly improves faculty teaching skills and promotes new educational activities. The Center has four sections: Faculty Development and Active Learning Section, Learning Material Development and Analysis Support Section, Integrated Bachelor's and Master's Program Section, and Support for Pioneering Research Initiated by the Next Generation Program Section (SPRING).



Textbooks written by professors in the Learning Material Development and Analysis Support Section

The Center for Shared Research Facilities

The Center was established with the objective of supporting science and engineering education and research at Muroran Institute of Technology. Equipment in the Center includes electron microscopes, a nuclear magnetic resonance device, an X-ray diffraction device, mass spectrometers, physical property measurement devices, and others.



Field Emission Transmission Electron Microscope.

The Center for Regional Education and Cooperation

The Center not only offers education (as non-regular courses) in cooperation with the wider regional community, such as lifelong learning including open lectures and an educational program based on industry-academia collaboration, provide education in cooperation with the community, such as re-education for working adults and entrepreneurship education, and carry out operations related to human resource development in the region.

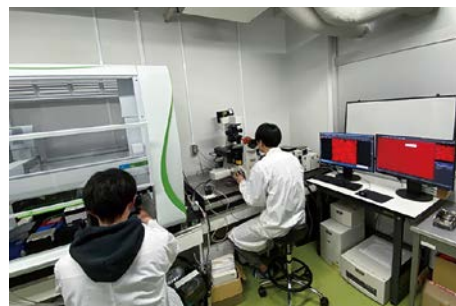


Campus Tour for elementary school students

The Center for Creative Collaboration

The Center for Creative Collaboration contributes to local problem-solving and development at a high level by fusing information, materials, civil engineering, and machinery. This Center aims to promote science and technology development to realize a sustainable and prosperous society as described in “Hokkaido MONO Manufacturing Vision 2060” through creative collaborations.

With the key concept of “information-oriented MONO manufacturing” as a driver, there are currently 9 operational Center laboratories, AI Lab, Emerging Networks and Systems Lab, Hokkaido Natural Materiome Research Lab, Super-multicasting Alloy Lab, Urban Informatics Lab, Structural Mitigation Research Lab, Natural Disaster Prevention Research Lab, Disaster Waste Research Lab, and Carbon Positive Lab.



High-Throughput Evaluation System applying bionanoimaging technology

The Center for Computer Science

The Center for Computer Science (CCS) aims to promote world-class researches in the field of computer science, build networks through collaboration with domestic and international institutions, as well as contribute to the education of advanced young researchers who will lead a smart society in the future.



International Network

Robot Arena

The Robot Arena is a facility open to the general public. It promotes education, research and makes contributions to the region in the robotics field. The activities in the Robot Arena include exhibiting and operating robots, monthly hands-on workshops for local youth, familiarizing the community with robotic technology, training highly educated human resources via project-based learning (PBL), and developing robot related technology in accordance with local needs.



Robot Exhibition Space

The Admissions Office

The Admissions Office was established in April, 2011, for the purposes of planning and implementing admissions policies, facilitating smooth and appropriate public relations for entrance examinations, and developing relationships and co-operating with high schools. This office consists of two sections: the section for planning and implementing admissions policies and the section for facilitating public relations for entrance examinations.



Iburi-Hidaka High School-University Collaboration Conference

Office for Promotion of Gender Equality

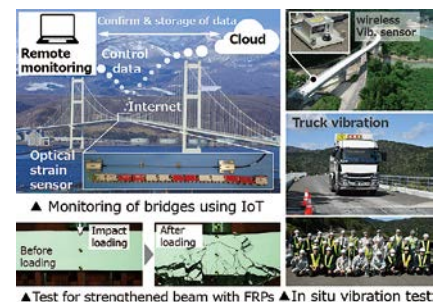
The Office for Promotion of Gender Equality is working to create an environment where faculty, staff, and students, regardless of gender, can utilize their abilities and play an important role in various fields. Our main tasks are to provide support to faculty and staff members who are raising children or caring for family members, to hold seminars to raise the general awareness of gender equality, and to disseminate information inside and outside the university through our website and newsletters.



Lunchtime seminar for career development

Infrastructure Management Engineering Course

This endowed course, established in April 2018, promotes research on issues related to the prolongation of lifespan of infrastructure constructed in cold and snowy regions.



Endowed Research Laboratory of Un-mined Mineral Resources and Energy Engineering

This endowed course was established in April 2019 with the goals of conducting verification testing on Hybrid Underground Coal Gasification (H-UCG) which would lead to regional revitalization. Based on a safe, high gasification efficiency and environmentally friendly UCG system already developed by the laboratory, new technologies on H₂ production, CO₂ capture, utilization and storage (CCUS), and biomass combined gasification are progressed for H-UCG. These innovative technologies are expected to build a new business model applying to the coal field regions worldwide.

This laboratory is financially supported by the Mikasa City, Hokkaido, New Digital Cable Co., Ltd., Hokkaido Association for the Preservation of the Environment through Technology, Iwata Chizaki Inc., AquaGeotechno Inc. and Underground Resources Innovation Network, NPO.



Front view of the Research Facility at Mikasa City (upper)
The CCUS Field Study Tour for junior high school students (lower)

Tokyo Office

Muroran Institute of Technology has its Tokyo Office to facilitate the acquisition of external funds for collaborative research and other initiatives, to support industry-academia-government collaboration, and to provide assistance to the University's current and prospective students. It also serves as a center of public relations activities for the University's entrance examinations and liaises with its alumni associations.

Address: Aios Nagatacho Room 314, 2-17-17, Nagatacho, Chiyoda-ku, Tokyo, 100-0014
Tel.: 81-(0)3-6206-6703
Fax: 81-(0)3-6206-6704



Tokyo Office Building

Satellite Office (Sapporo)

The office not only serves as a base for industry-academia-government collaboration, but also provides space for conferences and seminars.

Address: HiNT, R&B Park Sapporo Odori Satellite
7F Showa Building, (directly connected to Exit No. 1 of Odori Subway Station) 8, Odori Nishi 5-chome, Chuo-ku, Sapporo, Hokkaido 060-0042
Tel: 81-(0)11-219-3359
Fax: 81-(0)11-219-3351



Picture of a seminar at the office

Taiki Satellite Office

The purpose of this satellite office is to strengthen cooperation with Taiki-cho and other areas in the Tokachi region. This cooperation works towards the realization of the spaceport concept, provides support and cooperation for educational aerospace events held by municipalities and industries as community contribution initiatives, and promotes joint research with the space launch company, Interstellar Technologies Co., Ltd.



Signboard of Taiki Satellite Office

Shiranuka Satellite Office

This satellite office is a representative organization of JST's co-creation place formation support program (COI-NEXT) regional co-creation field development type, Shiranuka Town, the secretary municipality, and three secretary organizations (Kaneka Corporation, NTT East Japan Corporation, Hokkaido), in order to realize the regional base vision of "a rich food town where people want to gather and live, guided by the wisdom of the Ainu." We have established a base of our university for the purpose of building a "co-creation base" and deepening educational cooperation with Shiranuka High School.

It will be used for Shiranuka Senreigaku lectures, COI-NEXT project events (Shiranuka Future Co-Creation Conference, programs for local residents, lectures, workshops, etc.), and will play a role as a co-creation base with the local community.



Signboard of Shiranuka Satellite Office

■ Undergraduate School

Integrated Bachelor's/Master's Program

(1) Overview

The Integrated Bachelor's/Master's Program is a special educational program designed to produce highly-skilled master's degree graduates via three approaches. Specifically, this program enables undergraduates to start research for their senior thesis ahead of time as a basis for their research in the master's course, to complete classes in the bachelor's and master's courses within four years and to realize interdisciplinary collaboration with innovative enterprises, which is difficult to imagine in conventional master's programs.

(2) Program description

The Integrated Bachelor's/Master's Program includes the following educational approaches:

- (A) Research lab assignment in the second semester of the third year of the bachelor's course and early start with preparation for the bachelor's thesis
- (B) Taking master's course classes ahead of time while engaged in the bachelor's course
- (C) Local Partnership PBL
- (D) Overseas Internship

Program for Regional Community Revitalization

(1) Overview

Under the basic philosophy of "Making Dreams Come True Through Creative Science and Technology," our institute aims to offer comprehensive science and technology education and contributes to the advancement of local and international knowledge to help develop a well-rounded society.

With the objective of developing human resources who can create local industries and become regional leaders, the Program for Regional Community Revitalization offers educational activities utilizing local resources in cooperation with local governments, companies and other organizations to help students develop skills that can contribute to regional revitalization.

(2) Program description

The Program for the Promotion of Regional Revitalization covers subjects related to regional education and education on specific regional issues.

- ① Subjects related to regional education
- ② Subjects related to education on regional issues

Mathematical and Data Science Education Program

(1) Overview

The "Mathematical and Data Science Education Program" aims to develop human resources with mathematical and information fundamentals. This will be achieved by enhancing mathematical data science skills in science and engineering education at Hokkaido University. This program will be promoted in collaboration with Hokkaido University's mathematical data science education.

(2) Program description

The "Mathematical and Data Science Education Program" consists of three categories of courses:

- i) Information Fundamentals
- ii) Mathematical Foundations
- iii) Data Science

■ Graduate School

Management of Technology Program

(1) Overview

Management of technology (MOT) involves the sustainable development of companies and organizations in technological fields by assessing the potential of technology, commercializing it and creating economic value.

MuroranIT launched the MOT Educational Program in FY 2006 for master's degree students to foster engineers with solid management skills in order to meet social expectations and demand for a new human resource development program that gives engineers opportunities to learn about management.

(2) Program description

The program is also open to front-line workers (as credited auditors) in addition to graduate students on master's courses. Those gaining the required number of credit hours will receive completion certificates. Students will learn:

- ① how various corporations and other organizations pursue technological advancement to promote sustainable development as part of their business activities;
- ② how to plan, design and manage development work so that technologies and innovations can be used to create new products and projects; and
- ③ how to formulate future strategies based on cases of success and failure by various corporations and other organizations.

Rare Earth Materials Engineering Education Program

(1) Overview

This program accepts master's and doctoral students from several courses and provides them with specialized basic subjects (fundamental subjects) related to rare earth materials. It also offers practical training (Exercise in Rare Earth Materials Engineering) that allows students to acquire the measurement and analysis methods necessary for rare earth materials research, and requires students to conduct experiments and practical training under the supervision of a faculty member other than their primary supervisor in the on-campus internship program. In addition, short- and long-term internships are available for students to receive research guidance at domestic and overseas research institutions, allowing them to receive research guidance from multiple faculty members and researchers by taking these courses. This educational program provides students with opportunities to broaden their knowledge through the courses offered, and aims to develop human resources who can apply the results to their research by improving their understanding and technical skills in their specialized fields.

(2) Program description

The program has the three characteristics outlined below, and students gaining the required number of credits will receive completion certificates.

- ① Introductory courses to give students an overview of the current situation and future trends
- ② Practical courses that enable students to acquire experimental techniques and analytical methods required in the field of research
- ③ Internships at relevant institutions in Japan and elsewhere

Project based AI learning program utilizing the cooperation of private corporations (PBL-AI PGP)

(1) Overview

This program is available only to doctoral students of the graduate school who have been approved in advance. Students learn about practical applications of artificial intelligence (AI) technology by working on some of the joint research projects with companies that have cooperative relationships with Tohoku University. This program will foster researchers with advanced knowledge and application skills in AI, which is currently required in many fields.

(2) Program description

- i) Program subject: Advanced Artificial Intelligence Studies
- ii) Innovation Challenge (long-term internship)
- iii) Research progress report meeting

Program for fostering innovative human resources to lead a smart society in computer science x specialized fields (CS x specialized programs)

(1) Overview

This program is available only to doctoral students of the graduate school who have been approved in advance. We conduct cross-disciplinary research and education based on computer science with the aim of fostering the next generation of "innovators" who can lead a smart society in an increasingly globalized real world.

(2) Program description

- i) Program subject: Advanced Computer Science Application
- ii) Academic Research Progress Seminars

Mathematical and Data Science Education Program

(1) Overview

In this program, we will develop human resources with mathematical and information fundamentals. This will be achieved by enriching mathematical data science skills in science and engineering education in our university. This program will be promoted in collaboration with Hokkaido University's mathematical data science education

(2) Program description

This program consists of courses in the three categories of Information Fundamentals, Mathematical Fundamentals, and Data Science.

- i) Information Fundamentals
- ii) Mathematical Foundations
- iii) Data Science

Lifelong Education

■ Lifelong Education

Muroran Institute of Technology offers the following programs as part of its contribution to lifelong education.

Open Lectures

We hold public lectures for the purpose of providing learning opportunities to local residents. About 20 public lectures are scheduled to be held in 2023. We will inform you of the schedule on the website as public health matters develop.

Non-degree Student System

The Non-degree Student System is a program of courses that adults take, and for which they earn credits as auditing students in undergraduate or graduate schools.

Exceptional Curriculum for Adult Engineers and Researchers

An education system in which adult engineers and researchers who wish to enter master's or doctoral courses can attend lectures and receive research guidance at night or other specified times if deemed educationally necessary.

Long-term Student System

This system allows engineers and researchers for whom the regular-term curriculum at the graduate school is impractical due to work or other reasons to earn master's/doctoral degrees via systematic study beyond the course term.



Facts and Figures

25 University Officials

25 Number of University Officials

25 Number of Researchers
Employed

26 Student Capacity and Enrollment

26 Student Capacity and Current
Enrollment

27 Admissions

28 Number of Degrees Awarded

28 Scholarship Students

29 Career Placement

29 Graduate Employment

31 Coalition Agreements

32 International Exchange Activity

32 International Agreements on
Academic Exchange

33 Number of Students who
Study Abroad

34 Current Enrollment of
International Students

34 Transition of International
Students Numbers

34 Current Employment of
Foreign Researchers

35 Library-Number of Books in Stock and Others

36 External Funds

37 Finances

38 Campus and Facilities

38 Land and Buildings

39 Campus Map

40 Access Map

University Officials

■ Number of University Officials

Board Members

(As of May 1, 2023)

Classification Job Title	President	Full-time Regent	Part-time Regent	Full-time Auditor	Part-time Auditor	Total
President	1					1
Executive Director		3				3
Auditor					2	2
Total	1	3			2	6

Faculty Members

(As of May 1, 2023)

Classification Department	Vice President/ Center Director	Professor	Associate Professor	Lecturer	Assistant Professor	Subtotal	Staff/ Technician	Total
Vice President	(5)					(5)		(5)
College of Design and Manufacturing Technology		32	31	2	16	81		81
College of Information and Systems		21	25		12	58		58
College of Liberal Arts		12	15	2	2	31		31
Library	(1)					(1)		(1)
Health Administration Center	(1)					(1)	1	1 (1)
Center for International Relations	(1)		(3)			(4)		(4)
Career Support Center	(1)					(1)		(1)
Aerospace Plane Research Center	(1)		(1)		(1)	(3)		(3)
Manufacturing and Engineering Design Center	(1)					(1)		(1)
The Center for Rare Earths Research	(1)	(1)				(2)		(2)
The Institute for Cocreation of "Mirai" making things	(1)	(1)				(2)		(2)
The Science and Engineering Office for Human Resource Development	(1)					(1)		(1)
The Center for Fundamental Education in Science and Engineering	(1)					(1)		(1)
The Center for ICT Education	(1)					(1)		(1)
The Center for Innovation in Education	(1)		(1)		(2)	(4)		(4)
The Center for Shared Research Facilities	(1)					(1)		(1)
The Center for Regional Education and Cooperation	(1)		(1)			(2)		(2)
The Center for Creative Collaboration	(1)					(1)		(1)
The Center for Computer Science	(1)					(1)		(1)
Technical Division	(1)					(1)	22	22 (1)
Administration Bureau							81	81
Total	(22)	65 (2)	71 (6)	4 (0)	30 (3)	170 (33)	104	274 (33)

Note: Numbers in parentheses indicate the number of additional positions.

Specially-appointed Professors

(As of May 1, 2023)

Classification	Professor	Associate Professor	Lecturer	Assistant Professor	Total
Specially-appointed Professor	6	1	1	1	9

■ Number of Researchers Employed

(2022 School Year)

Classification	Qualification	Number Employed
Teaching Assistant (TA)	Master's Course Students	342
Research Assistant (RA)	Doctoral Course Students	18
Part-time Researcher	Post-Doctoral	5
Guest Professor	—	14
Other Researcher	—	0
Total	—	379

Student Capacity and Enrollment

Student Capacity and Current Enrollment

Undergraduate School

(As of May 1, 2023)

	Departments / Courses		Admission Capacity	Transfer admission Capacity	Total Capacity	Current Enrollment					Total
						Freshmen	Sophomores	Juniors	Seniors	Subtotal	
Faculty of Science and Engineering	Department of Engineering	Daytime Course	325	25	1,350	342 (55) <5>	329 (32) <6>	351 (47) <11>	394 (35) <15>	1,416 (169) <37>	1,594 (180) <37>
		Evening Course	40	—	160	49 (2)	40 (1)	38 (5)	51 (3)	178 (11)	
	Department of Sciences and Informatics	Daytime Course	235	15	970	243 (45) <6>	242 (36) <3>	250 (36) <2>	310 (51) <8>	1,045 (168) <19>	1,045 (168) <19>
Faculty of Engineering	Civil Engineering and Architecture	Daytime Course	—	—	—	—	—	—	4 (0) <1>	4 (0) <1>	4 (0) <1>
	Mechanical, Aerospace and Materials Engineering	Daytime Course	—	—	—	—	—	—	11 (1) <0>	11 (1) <0>	16 (1) <0>
		Evening Course	—	—	—	—	—	—	5 (0)	5 (0)	
	Applied Sciences	Daytime Course	—	—	—	—	—	—	11 (2) <2>	11 (2) <2>	11 (2) <2>
	Information and Electronic Engineering	Daytime Course	—	—	—	—	—	—	21 (1) <1>	21 (1) <1>	23 (1) <1>
		Evening Course	—	—	—	—	—	—	2 (0)	2 (0)	
Subtotal	Daytime Course	560	40	2,320	585 (100) <11>	571 (68) <9>	601 (83) <13>	751 (90) <27>	2,508 (341) <60>		
	Evening Course	40	—	160	49 (2)	40 (1)	38 (5)	58 (3)	185 (11)		
Total		600	40	2,480	634 (102) <11>	611 (69) <9>	639 (88) <13>	809 (93) <27>	2,693 (352) <60>		

※ Numbers in parentheses indicate the number of female students in the total. Numbers in angle brackets indicate the number of International students in the total.

※ Departments were reorganized in April 2019.

Graduate School

(As of May 1, 2023)

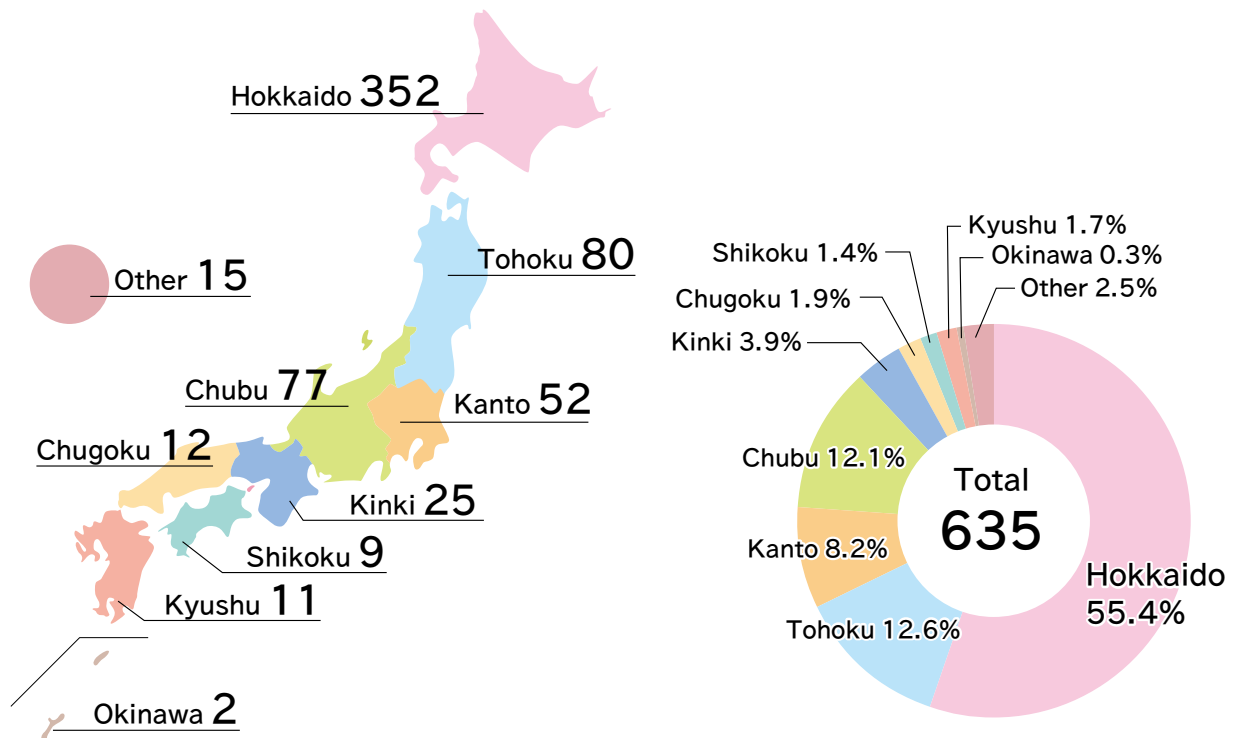
Divisions		Admission Capacity	Total Capacity	Current Enrollment			
				1 st Year	2 nd Year	3 rd Year	Total
Master's Course	Division of Sustainable and Environmental Engineering	73	146	89 (17) <4>	91 (13) <7>	—	180 (30) <11>
	Division of Production Systems Engineering	84	168	89 (8) <7>	87 (9) <2>	—	176 (17) <9>
	Division of Information and Electronic Engineering	67	134	74 (7) <15>	84 (5) <14>	—	158 (12) <29>
	Subtotal	224	448	252 (32) <26>	262 (27) <23>	—	514 (59) <49>
Doctoral Course	Division of Engineering	15	45	21 (8) <12>	22 (6) <13>	27 (5) <16>	70 (19) <41>
	Subtotal	15	45	21 (8) <12>	22 (6) <13>	27 (5) <16>	70 (19) <41>
Total		239	493	273 (40) <38>	284 (33) <36>	27 (5) <16>	584 (78) <90>

※ Numbers in parentheses indicate the number of female students in the total. Numbers in angle brackets indicate the number of International students in the total.

※ In addition to the above students, there are 26 non-degree students, 6 auditing students including 1 auditing exchange student and 20 research students including 12 special research students.

■ Admissions

Location of Admissions



Applications and Actual Admissions

① Undergraduate Freshmen

Department		2023 School Year	
		Applied	Admitted
Daytime Course	Department of Engineering	1,368 (174)	337 (55)
	Department of Sciences and Informatics Engineering	952 (152)	236 (43)
	Subtotal	2,320 (326)	573 (98)
Evening Course	Department of Engineering Engineering	207 (9)	49 (2)
	Subtotal	207 (9)	49 (2)
Total		2,527 (335)	622 (100)

Note: Numbers in parentheses indicate the number of female students in the total.

② Privately Funded Foreign Students (Special admission, not included in the enrollment limit)

Department		2023 School Year	
		Applied	Admitted
Daytime Course	Department of Engineering	11	6
	Department of Sciences and Informatics Engineering	16	6
Total		27	12

③ Malaysian Government Sponsored Students (Not included in the enrollment limit)

Department		2023 School Year
		Admitted
Daytime Course	Department of Engineering	0
	Department of Sciences and Informatics Engineering	0
Total		0

■ Number of Degrees Awarded

Undergraduate Course (Engineering)

Establishments			2022 School Year	Cumulative number	
Daytime Course	April, 2019	Engineering	294	294	
		Civil Engineering and Architecture	16	1,158	
	April, 2009	Mechanical, Aerospace and Materials Engineering	21	1,417	
		Applied Sciences	16	1,291	
		Information and Electronic Engineering	41	1,779	
	April, 1990	Civil Engineering and Architecture	—	2,109	
		Mechanical Systems Engineering	—	1,852	
		Computer Science and Systems	—	1,835	
		Electrical and Electronic	—	1,891	
		Materials Science and Engineering	—	1,886	
		Applied Chemistry	—	1,711	
	Evening Course	April, 2019	Engineering	36	36
			Mechanical, Aerospace and Materials Engineering	2	200
April, 2009		Information and Electronic Engineering	5	204	
		Mechanical Systems Engineering	—	352	
		Computer Science and Systems	—	194	
April, 1990	Electrical and Electronic	—	201		
	Subtotal	431	18,410		
1st Undergraduate Department (After March 1953)			—	13,223	
2nd Undergraduate Department (After March 1969)			—	1,663	
Total			—	33,296	

Note: Numbers in the 1st Undergraduate Department and 2nd Undergraduate Department indicate the number of graduates before the departments were reorganized on April 1, 1990.

Undergraduate Course (Science & Technology)

Establishments			2022 School Year	Cumulative number
Daytime Course	April, 2019	Sciences and Informatics	192	192
Total			—	192

Master's Course (Engineering)

Establishments/Divisions		2022 School Year	Cumulative number
April, 2014	Division of Sustainable and Environmental Engineering	80	609
	Division of Production Systems Engineering	79	661
	Division of Information and Electronic Engineering	72	518
April, 2009	Civil Engineering and Architecture	—	148
	Mechanical Systems and Materials Engineering	—	278
	Applied Sciences	—	233
April, 2008	Information and Electronic Engineering	—	357
	System Engineering for Public Works	—	35
	Aerospace Engineering	—	96
April, 1990	System Engineering for Mathematics	—	8
	Civil Engineering and Architecture	—	629
	Mechanical Systems Engineering	—	692
	Computer Science and Systems Engineering	—	586
	Electrical and Electronic Engineering	—	638
	Materials Science and Engineering	—	575
	Applied Chemistry	—	539
Subtotal		231	6,602
Degrees awarded prior to Reorganization (1990)		—	1,227
Total		—	7,829

Doctoral Course (Engineering)

Establishments/Divisions		2022 School Year	Cumulative number
April, 2014	Division of Engineering	21	120
	Civil and Environmental Engineering		15
April, 2009	Production and Information Systems Engineering		24
	Aerospace Engineering		120
	Chemical and Materials Engineering		15
	Engineering for Composite Functions	—	13
April, 2000	Engineering for Composite Functions	—	34
April, 1990	Civil and Environmental Engineering	—	72
	Production and Information Systems Engineering	—	149
	Chemicals and Materials Engineering	—	70
Subtotal		21	516
Doctorate by Dissertation		0	81
Total		21	597

■ Scholarship Students (Japanese)

(As of March 1, 2023)

Classification		JASSO (Japan Student Services Organization)					Allotment Rate
		Category 1 Loans	Category 2 Loans	Scholarship-Grant	Total		
Faculty of science and Engineering	Freshmen	153 (8)	120 (10)	77 (8)	350 (26)	56%	
	Sophomores	116 (9)	124 (9)	84 (5)	324 (23)	53%	
	Juniors	126 (7)	155 (6)	71 (5)	352 (18)	53%	
Faculty of Engineering	Seniors	132 (8)	138 (7)	77 (10)	347 (25)	44%	
Subtotal		527 (32)	537 (32)	309 (28)	1,373 (92)	51%	
Graduate School	Master's Course	1st Yr.	107	8		115	44%
		2nd Yr.	98	7		105	43%
	Doctoral Course	1st Yr.	2	1		3	15%
		2nd Yr.	3	0		3	15%
		3rd Yr.	2	0		2	6%
Subtotal		212	16		228	40%	
Grand Total		739 (32)	553 (32)	309 (28)	1,601 (92)	49%	

Note: Numbers in parentheses indicate the number of evening course students.

■ Career Placement

Faculty of Science and Engineering (Daytime Course) (As of May 1, 2023)

Classification	Department of Engineering					Department of Sciences and Informatics				Total
	Architecture Track, Course of Architecture and Civil Engineering	Civil Engineering Track, Course of Architecture and Civil Engineering	Course of Robotics and Mechanical Engineering	Course of Aerospace Engineering	Course of Electrical and Electronic Engineering	Course of Physics and Materials Sciences	Course of Chemical and Biological Systems	Course of Mathematical Science and Informatics		
Graduate School	26 (4)	22 (2)	30 (1)	33 (3)	21 (3)	11 (2)	39 (10)	35 (3)	217 (28)	
Employment	Agriculture/Forestry Industry					1			1 (0)	
	Fishing Industry								0 (0)	
	Mining, Quarrying, Gravel Extraction Industry						1		1 (0)	
	Construction Industry	27 (14)	13	2		5 (1)			47 (15)	
	Manufacturing Industry			18 (3)	12 (4)	8	2	13 (3)	53 (10)	
	Natural Resource Industry		1	3		3	2	2 (1)	11 (1)	
	Information and Communication Industry			3		4	1	2 (2)	39 (6)	
	Transport and Postal Industry		1	1				1	3 (0)	
	Wholesale and Retail Industry			1			1	1 (1)	3 (1)	
	Financial and Insurance Industry								0 (0)	
	Real Estate and Lease Industry					1			1 (0)	
	Academic Research/Technical Services	1 (1)	4			3 (1)		1	9 (2)	
	Hotel and Restaurant Industry								0 (0)	
	Services for Daily Living/Amusement Industry			1					1 (0)	
	Education/Study Support Services					1		1 (1)	3 (1)	
	Medical and Welfare Services							1 (1)	1 (1)	
	Multi-faceted Service Industry								0 (0)	
	Service Industry			7	5	4	1	2 (1)	13	32 (1)
	Public Service	3 (2)	17 (6)	1		1	4	2 (1)	4	32 (9)
	Other				1					1 (0)
Subtotal	31 (17)	36 (6)	37 (3)	18 (4)	30 (2)	12 (0)	27 (10)	57 (7)	248 (49)	
Other Activities	1 (1)	1 (1)	2	2 (1)	4	2 (1)	3	6	21 (4)	
2022 Graduates	58 (22)	59 (9)	69 (4)	53 (8)	55 (5)	25 (3)	69 (20)	98 (10)	486 (81)	

Note: Numbers in parentheses indicate the number of female students.

Faculty of Science and Engineering (Evening Course) (As of May 1, 2023)

Classification	Department of Engineering		Total	
	Course of Mechanical Engineering	Course of Electrical and Electronic Engineering		
Graduate School	7	7 (1)	14 (1)	
Employment	Agriculture/Forestry Industry		0 (0)	
	Fishing Industry		0 (0)	
	Mining, Quarrying, Gravel Extraction Industry		0 (0)	
	Construction Industry	2	5	7 (0)
	Manufacturing Industry	2 (1)	3	5 (1)
	Natural Resource Industry	1 (1)	2	3 (1)
	Information and Communication Industry			0 (0)
	Transport and Postal Industry		1	1 (0)
	Wholesale and Retail Industry			0 (0)
	Financial and Insurance Industry			0 (0)
	Real Estate and Lease Industry			0 (0)
	Academic Research/Technical Services			0 (0)
	Hotel and Restaurant Industry			0 (0)
	Services for Daily Living/Amusement Industry			0 (0)
	Education/Study Support Services			0 (0)
	Medical and Welfare Services			0 (0)
	Multi-faceted Service Industry			0 (0)
	Service Industry		3	3 (0)
	Public Service		1	1 (0)
	Other	1		1 (0)
Subtotal	6 (2)	15 (0)	21 (2)	
Other Activities	1		1 (0)	
2022 Graduates	14 (2)	22 (1)	36 (3)	

Note: Numbers in parentheses indicate the number of female students.

Faculty of Engineering (Daytime Course) (As of May 1, 2023)

Classification	Civil Engineering and Architecture	Mechanical, Aerospace and Materials Engineering	Applied Sciences	Information and Electronic Engineering	Total	
						Graduate School
Employment	Agriculture/Forestry Industry				0 (0)	
	Fishing Industry				0 (0)	
	Mining, Quarrying, Gravel Extraction Industry				0 (0)	
	Construction Industry	4		1 (1)	5	10 (1)
	Manufacturing Industry		9	2	4 (1)	15 (1)
	Natural Resource Industry	1 (1)				1 (1)
	Information and Communication Industry				11	11 (0)
	Transport and Postal Industry					0 (0)
	Wholesale and Retail Industry					0 (0)
	Financial and Insurance Industry				1	1 (0)
	Real Estate and Lease Industry	1				1 (0)
	Academic Research/Technical Services				1	1 (0)
	Hotel and Restaurant Industry					0 (0)
	Services for Daily Living/Amusement Industry					0 (0)
	Education/Study Support Services					0 (0)
	Medical and Welfare Services					0 (0)
	Multi-faceted Service Industry					0 (0)
	Service Industry		2	6	9	17 (0)
	Public Service	3	1			4 (0)
	Other					0 (0)
Subtotal	9 (1)	12 (0)	9 (1)	31 (1)	61 (3)	
Other Activities	5	2	1 (1)	5	13 (1)	
2022 Graduates	16 (2)	21 (2)	16 (2)	41 (2)	94 (8)	

Note: Numbers in parentheses indicate the number of female students.

Faculty of Engineering (Evening Course) (As of May 1, 2023)

Classification	Mechanical, Aerospace and Materials Engineering	Information and Electronic Engineering	Total	
				Graduate School
Employment	Agriculture/Forestry Industry		0 (0)	
	Fishing Industry		0 (0)	
	Mining, Quarrying, Gravel Extraction Industry		0 (0)	
	Construction Industry			0 (0)
	Manufacturing Industry	2		2 (0)
	Natural Resource Industry			0 (0)
	Information and Communication Industry		1 (1)	1 (1)
	Transport and Postal Industry			0 (0)
	Wholesale and Retail Industry			0 (0)
	Financial and Insurance Industry			0 (0)
	Real Estate and Lease Industry			0 (0)
	Academic Research/Technical Services			0 (0)
	Hotel and Restaurant Industry			0 (0)
	Services for Daily Living/Amusement Industry		1	1 (0)
	Education/Study Support Services			0 (0)
	Medical and Welfare Services			0 (0)
	Multi-faceted Service Industry			0 (0)
	Service Industry		2	2 (0)
	Public Service			0 (0)
	Other			0 (0)
Subtotal	2 (0)	4 (1)	6 (1)	
Other Activities		1	1 (0)	
2022 Graduates	2 (0)	5 (1)	7 (1)	

Note: Numbers in parentheses indicate the number of female students.

■ Graduate Employment

Location of Placement (Undergraduate School)

Hokkaido	145	Kanto	128	Kinki	19	Shikoku	1	Unknown	2
Tohoku	9	Chubu	26	Chugoku	1	Kyushu	5	Total	336

Graduate School (Master's Course)

(As of May 1, 2023)

Classification	Division of			Total
	Sustainable and Environmental Engineering	Production Systems Engineering	Information and Electronic Engineering	
Graduate School	1	1	4 (1)	6 (1)
Agriculture/Forestry Industry	3	1		4 (0)
Fishing Industry				0 (0)
Mining, Quarrying, Gravel Extraction Industry	1 (1)			1 (1)
Construction Industry	12	3 (1)	6	21 (1)
Manufacturing Industry	18 (6)	60 (5)	25 (2)	103 (13)
Natural Resource Industry	3 (1)	2	2	7 (1)
Information and Communication Industry	3	2	24 (4)	29 (4)
Transport and Postal Industry	1	4		5 (0)
Wholesale and Retail Industry	1			1 (0)
Financial and Insurance Industry				0 (0)
Real Estate and Lease Industry	2			2 (0)
Academic Research/Technical Services	19 (6)			19 (6)
Hotel and Restaurant Industry				0 (0)
Services for Daily Living/Amusement Industry		1		1 (0)
Education/Study Support Services				0 (0)
Medical and Welfare Services				0 (0)
Multi-faceted Service Industry				0 (0)
Service Industry	2		7	9 (0)
Public Service	7	3		10 (0)
Other				0 (0)
Subtotal	72 (14)	76 (6)	64 (6)	212 (26)
Other Activities	7 (2)	2	4	13 (2)
2022 Graduates	80 (16)	79 (6)	72 (7)	231 (29)

Note: Numbers in parentheses indicate the number of female students.

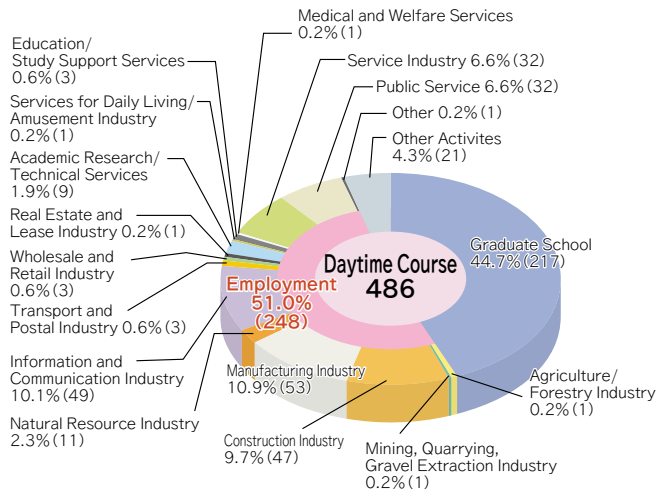
Graduate School (Doctoral Course)

(As of May 1, 2023)

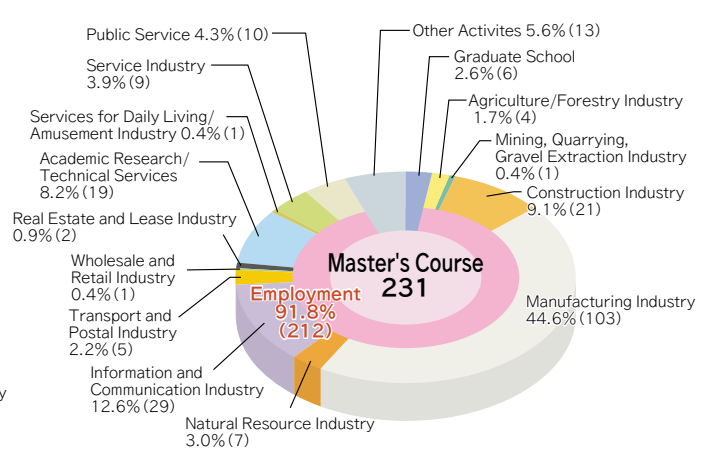
Classification	Engineering	Total
Graduate School		0 (0)
Agriculture/Forestry Industry		0 (0)
Fishing Industry		0 (0)
Mining, Quarrying, Gravel Extraction Industry		0 (0)
Construction Industry		0 (0)
Manufacturing Industry	5	5 (0)
Natural Resource Industry		0 (0)
Information and Communication Industry	1	1 (0)
Transport and Postal Industry		0 (0)
Wholesale and Retail Industry		0 (0)
Financial and Insurance Industry		0 (0)
Real Estate and Lease Industry		0 (0)
Academic Research/Technical Services	6 (2)	6 (2)
Hotel and Restaurant Industry		0 (0)
Services for Daily Living/Amusement Industry		0 (0)
Education/Study Support Services	5 (1)	5 (1)
Medical and Welfare Services		0 (0)
Multi-faceted Service Industry		0 (0)
Service Industry		0 (0)
Public Service		0 (0)
Other		0 (0)
Subtotal	17 (3)	17 (3)
Other Activities	4 (1)	4 (1)
2022 Graduates	21 (4)	21 (4)

Note: Numbers in parentheses indicate the number of female students.

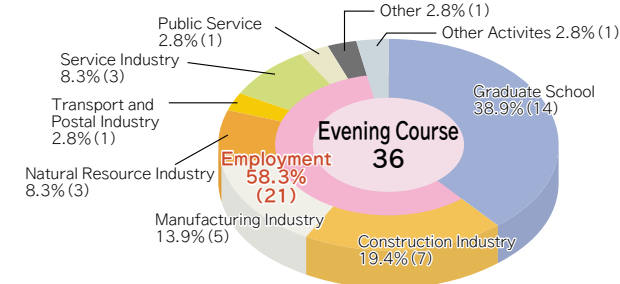
Faculty of Science and Engineering (Daytime Course)



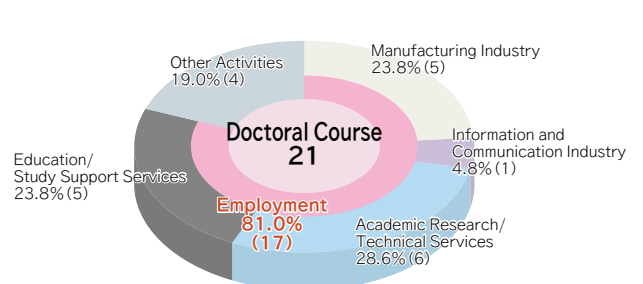
Graduate School (Master's Course)



Faculty of Science and Engineering (Evening Course)



Graduate School (Doctoral Course)



Coalition Agreements

Comprehensive Coalition Agreements

Partner University	Date of Conclusion
Otaru University of Commerce	Sep. 4, 2007
Sapporo Medical University	Nov. 20, 2007
Tokyo City University (Former Musashi Institute of Technology)	Dec. 13, 2007

Agreements on Academic Exchange

Partner University and College	Date of Conclusion
Hakodate National College of Technology, Tomakomai National College of Technology, Kushiro National College of Technology, Asahikawa National College of Technology	Mar. 29, 2010
Future University-Hakodate	Aug. 2, 2011

Agreements on Credit Transfer (Faculty of Engineering, Faculty of Engineering and Science)

Partner University and College	Date of Conclusion
Tomakomai National College of Technology	Jan. 28, 2004
Otaru University of Commerce	Mar. 23, 2007
Hokkaido University School of Engineering	Mar. 16, 2021

Agreements on Credit Transfer (Graduate School)

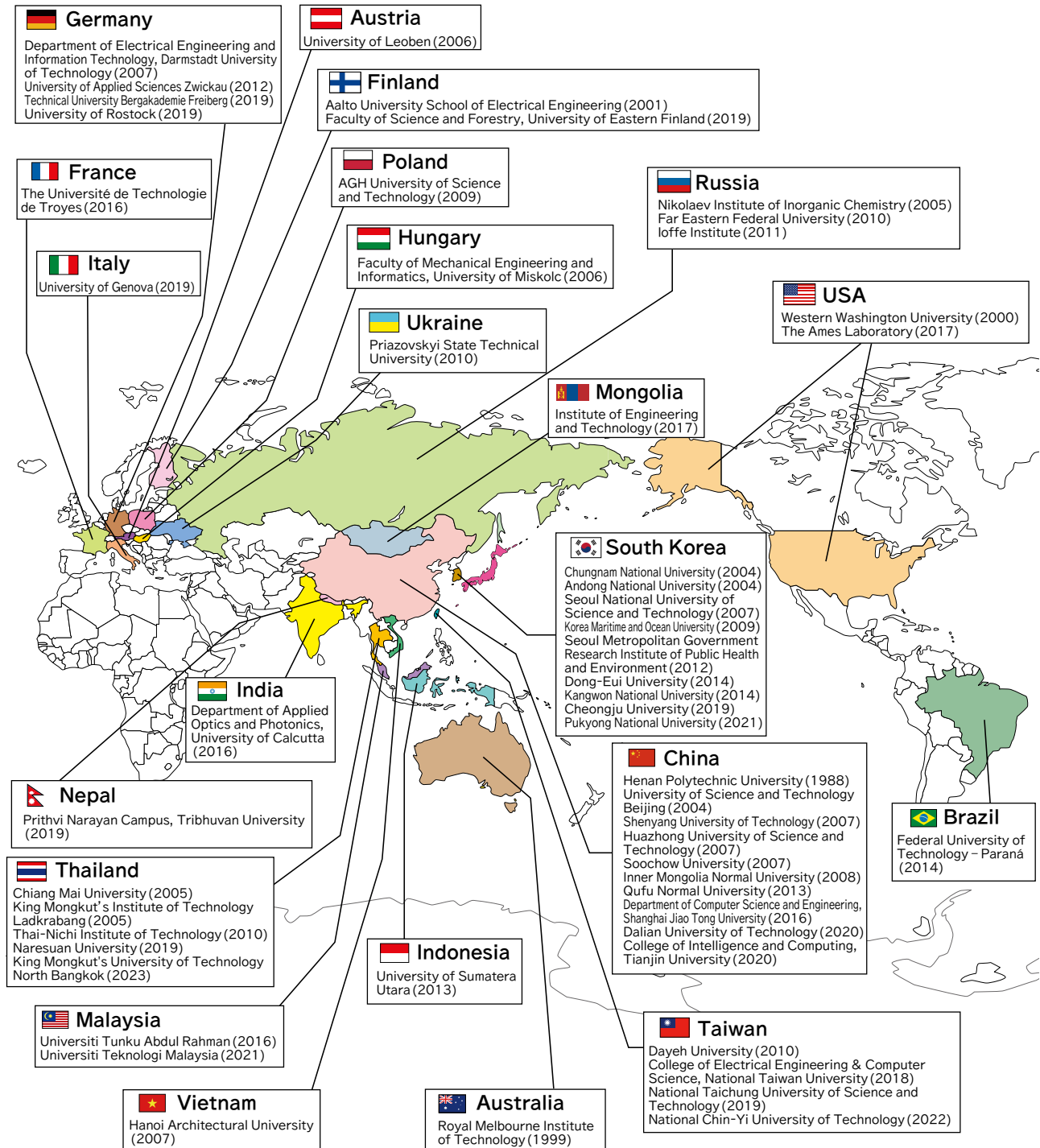
Partner University	Date of Conclusion
Hokkaido University Master's Course in Engineering	Nov. 28, 1983
Hokkaido University Master's Course in Science	Dec. 20, 1983
Kitami Institute of Technology	Mar. 26, 2001
Hokkaido University Master's Course in Information Science	Dec. 26, 2005
University of Electro-Communications, Akita Prefectural University	Mar. 30, 2012
Hokkaido University Graduate School of Engineering	Mar. 16, 2021

International Exchange Activity

International Agreements on Academic Exchange

Agreements with Universities or Institutes

(As of May 1, 2023)



■ Number of Students who Study Abroad

School Year	Classification	Number of Students in total	Host University and Country (Number of students)
2018	Short-term Exchange Program (Sponsored)	6	Royal Melbourne Institute of Technology, Australia (1) Faculty of Computer Science and Electrical Engineering, Rostock University, Germany (1) Chiang Mai University, Thailand (1) University of Technology of Troyes, France (1) University of Applied Sciences Zwickau, Germany (1) National Taichung University of Science and Technology, Taiwan (1)
	Language Study Tour or overseas training	55	Western Washington University, USA (4) Thai-Nichi Institute of Technology, Thailand (4) Royal Melbourne Institute of Technology, Australia (11) Chiang Mai University/ Thai-Nichi Institute of Technology, Thailand (3) University of Applied Sciences Zwickau, Germany (13) Institute of Engineering and Technology, Mongolia (4) Huazhong University of Science and Technology, China (6) Universiti Tunku Abdul Rahman, Malaysia (5) National Taichung University of Science and Technology, Taiwan (5)
2019	Short-term Exchange Program (Sponsored)	8	Royal Melbourne Institute of Technology, Australia (1) University of Rostock, Germany (2) Technical University Bergakademie Freiberg, Germany (1) University of Lapland, Finland (1) Huazhong University of Science and Technology, China (2) Hanoi Architectural University, Vietnam (1)
	Language Study Tour or overseas training	27	Western Washington University, USA (6) Royal Melbourne Institute of Technology, Australia (15) Prithvi Narayan Campus, Tribhuvan University, Nepal (5) Eastern Institute of Technology, Hawke'bay, New Zealand (1)
2020	Short-term Exchange Program (Sponsored)	0	*All programs of study abroad were cancelled due to COVID-19.
	Language Study Tour or overseas training	0	
2021	Short-term Exchange Program (Sponsored)	0	*All programs of study abroad were cancelled due to COVID-19.
	Language Study Tour or overseas training	0	
2022	Short-term Exchange Program (Sponsored)	2	University of Technology of Troyes, France (1)
			University of Applied Sciences Zwickau, Germany (1)
	Language Study Tour or overseas training	11	Thai-Nichi Institute of Technology, Thailand (1) Institute of Engineering and Technology, Mongolia (4) Prithvi Narayan Campus, Tribhuvan University, Nepal (6)

■ Current Enrollment of International Students

(As of May 1, 2023)

Nationality	Under-graduate	Graduate		Research Student	Non-degree Student	Special Research student	Special Non-degree Student	Total
		Master's Course	Doctoral Course					
China	40	36	23	3		8		110
Malaysia	11	4						15
South Korea	7	2	1				1	11
Bangladesh		2	5					7
Indonesia		1	3	1		1		6
Nepal		3	1					4
Vietnam	2		2					4
India			3					3
Thailand			2					2
Germany						1		1
Hungary		1						1
Pakistan			1					1
Taiwan						1		1
Total	60	49	41	4	0	11	1	166

■ Current Employment of Foreign Researchers

(As of fiscal year 2022)

Classification		Employed
Purpose	Research or Educational Instruction	5
	Lectures/Debates	0
	Observation/Investigation	0
Total		5
Cost Burden	Funded by Muroran Institute of Technology	34
	Faculty	12
	Project Professor	2
	Part-time lecturers	6
	Postdoctoral fellows	11
	Other	3
	Scientific research grants	0
	MEXT* projects	0
	Ministry projects other than MEXT	0
	JSPS**	0
	JICA***	0
	(Commissioned International Researchers)	0
	Other domestic funding	0
International governments/research institutes	0	
Privately funded	2	
Total	36	

* Ministry of Education, Culture, Sports, Science and Technology

** Japan Society for the Promotion of Science

*** Japan International Cooperation Agency

■ Transition of International Students Numbers

(As of May 1, each fiscal year)

School Year	2019	2020	2021	2022	2023
Japanese Government Sponsored	11	12	13	12	17
International Government Sponsored	25	19	19	11	5
Privately Funded	174	184	182	165	144
Total	210	215	214	188	166

Transition of Foreign Researchers

Academic Year	Employed
2016	60
2017	80
2018	58
2019	58
2020	28
2021	0
2022	36

Library-Number of Books in Stock and Others

Number of books in stock

(As of April 1, 2023)

Categories	Japanese	Foreign	Total
General	14,174	1,422	15,596
Philosophy	8,986	2,314	11,300
History	10,041	709	10,750
Social Science	26,582	1,934	28,516
Natural Science	52,840	13,751	66,591
Engineering	60,443	12,805	73,248
Industry	3,995	445	4,440
Art	7,120	760	7,880
Languages	7,200	4,222	11,422
Literature	18,542	4,107	22,649
Bound journals	7,928	19,543	27,471
Total	217,581	62,012	279,863

Number of journals in stock

(As of April 1, 2023)

Number of journals			Number of accessible electronic journals
Japanese	Foreign	Total	
3,874	2,191	6,065	4,071

Record of usage

(As of fiscal year 2022)

Category		Number of usage	Total
Number of visitors	Students	44,927	46,586
	Faculty	770	
	Others	889	
Circulation	Students	14,057	15,427
	Faculty	727	
	Others	643	
Number of references handled		298	

Hours and holidays

Hours	During school weekdays: 9 AM - 9 PM During school weekends: 11 AM - 7 PM During examinations all days: 9 AM - 10 PM During school holidays weekdays: 9 AM - 5 PM During school holidays weekends: 11 AM - 5 PM	Holidays	During school holidays, National holidays, some Sundays and Winter break (Dec. 28 - Jan. 4)
-------	--	----------	---

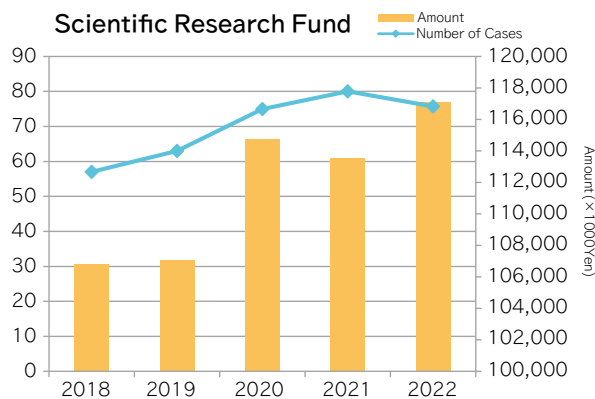
External Funds

External Funds

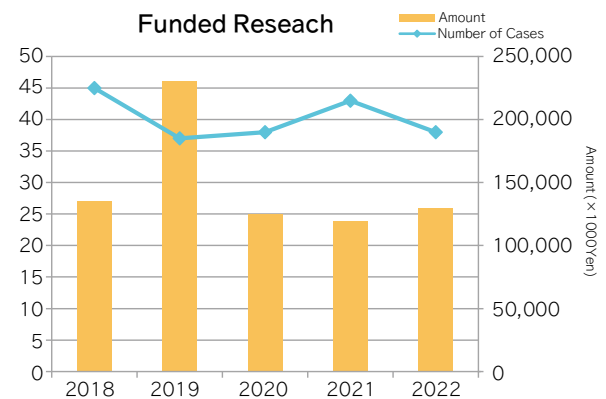
(As of fiscal year 2022)

Classification	Number of Cases	Amount (Unit: Thousand Yen)
Scientific Research Fund	76	117,390
Funded Research	38	126,991
Cooperative Research with Private Sectors	157	149,833
Scholarship Contributions	797	131,154
Other Grants	11	81,180
Total	1,079	606,548

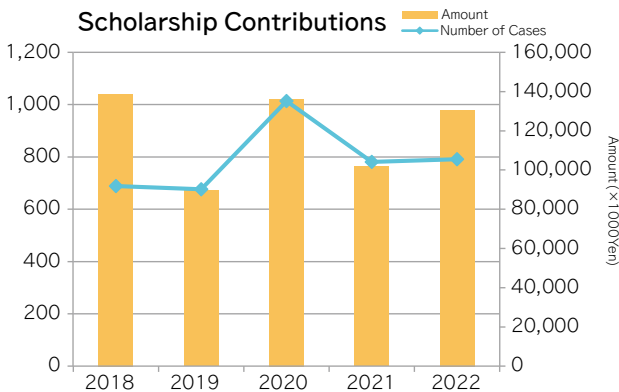
Transition of Research Funds in the Last Five Years



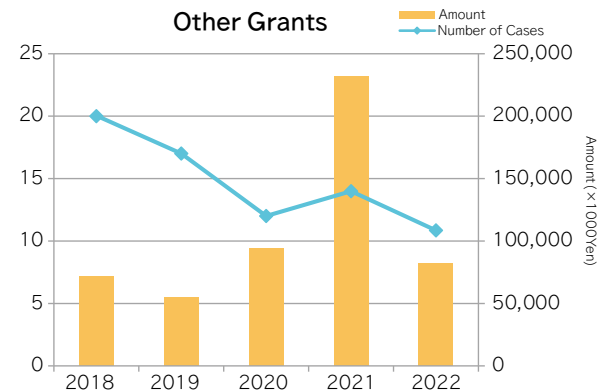
	2018	2019	2020	2021	2022
Number of Cases	57	63	75	80	76
Amount	106,860	107,120	114,920	113,750	117,390



	2018	2019	2020	2021	2022
Number of Cases	45	37	38	43	38
Amount	135,038	230,001	125,376	119,022	126,991

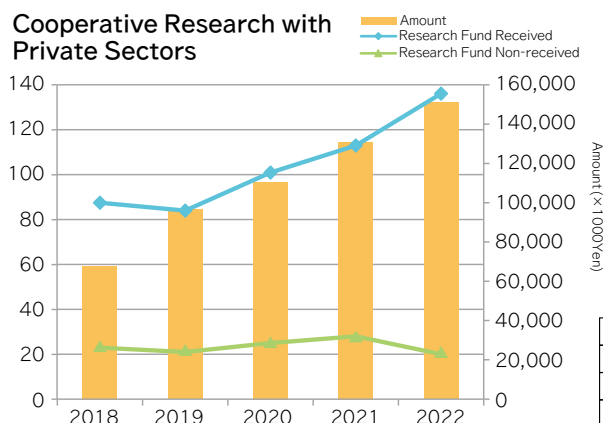


	2018	2019	2020	2021	2022
Number of Cases	689	676	1,014	781	797
Amount	138,819	89,680	136,232	101,702	131,154



	2018	2019	2020	2021	2022
Number of Cases	20	17	12	14	11
Amount	71,944	55,199	94,114	232,021	81,180

Cooperative Research with Private Sectors



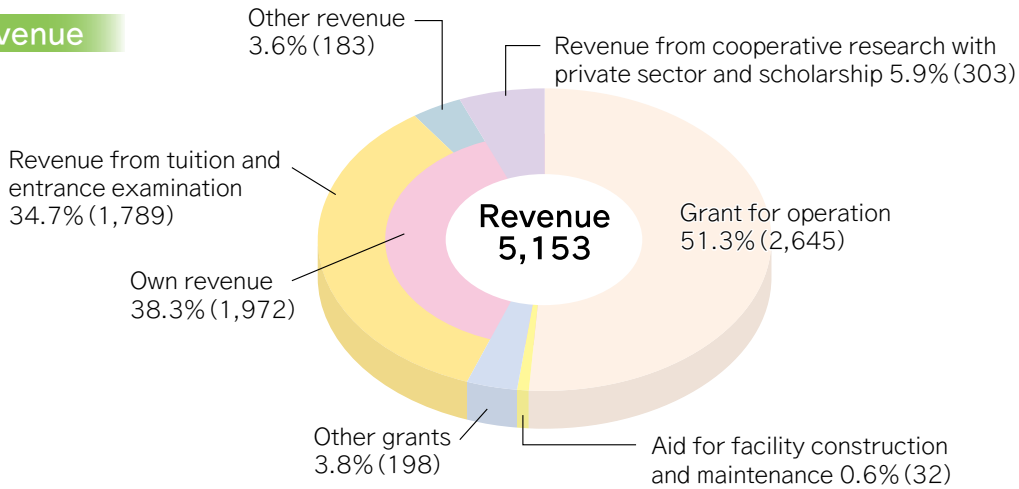
	2018	2019	2020	2021	2022
Research Fund Received	88	84	101	113	137
Research Fund Non-received	23	21	25	28	20
Amount	67,904	96,395	110,541	130,836	149,833

Finances

Budget

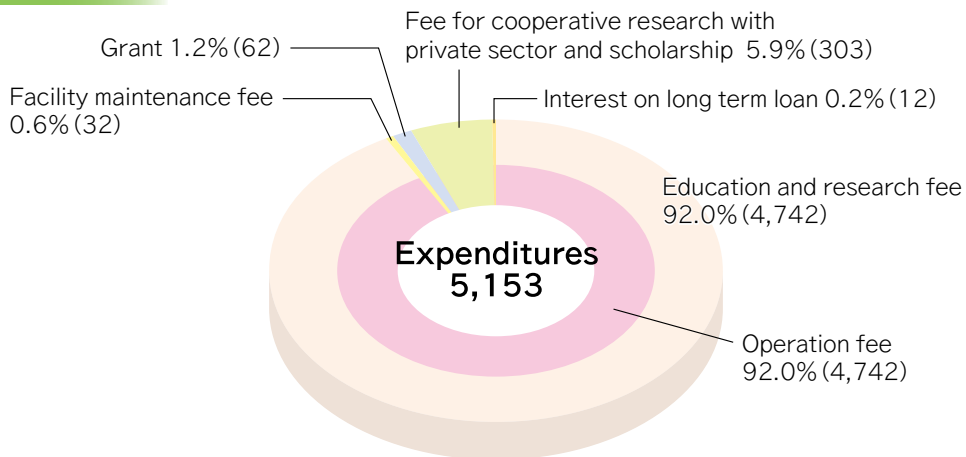
Budget for FY2023 (Unit: Million Yen)

Revenue



Category	Amount
Grant for operation	2,645
Aid for facility construction and maintenance	32
Other grants	198
Grant for finance and management center of national universities	—
Own revenue	1,972
Revenue from tuition and entrance examination	1,789
Revenue from disposing property	—
Other revenue	183
Revenue from cooperative research with private sector and scholarship	303
Use of allowance	—
Revenue from long term loan	—
Use of reserve fund	—
Total	5,153

Expenditures



Category	Amount
Operation fee	4,742
Education and research fee	4,742
Facility maintenance fee	32
Grant	62
Fee for cooperative research with private sector and scholarship	303
Loan	—
Interest on long term loan	12
Total	5,153

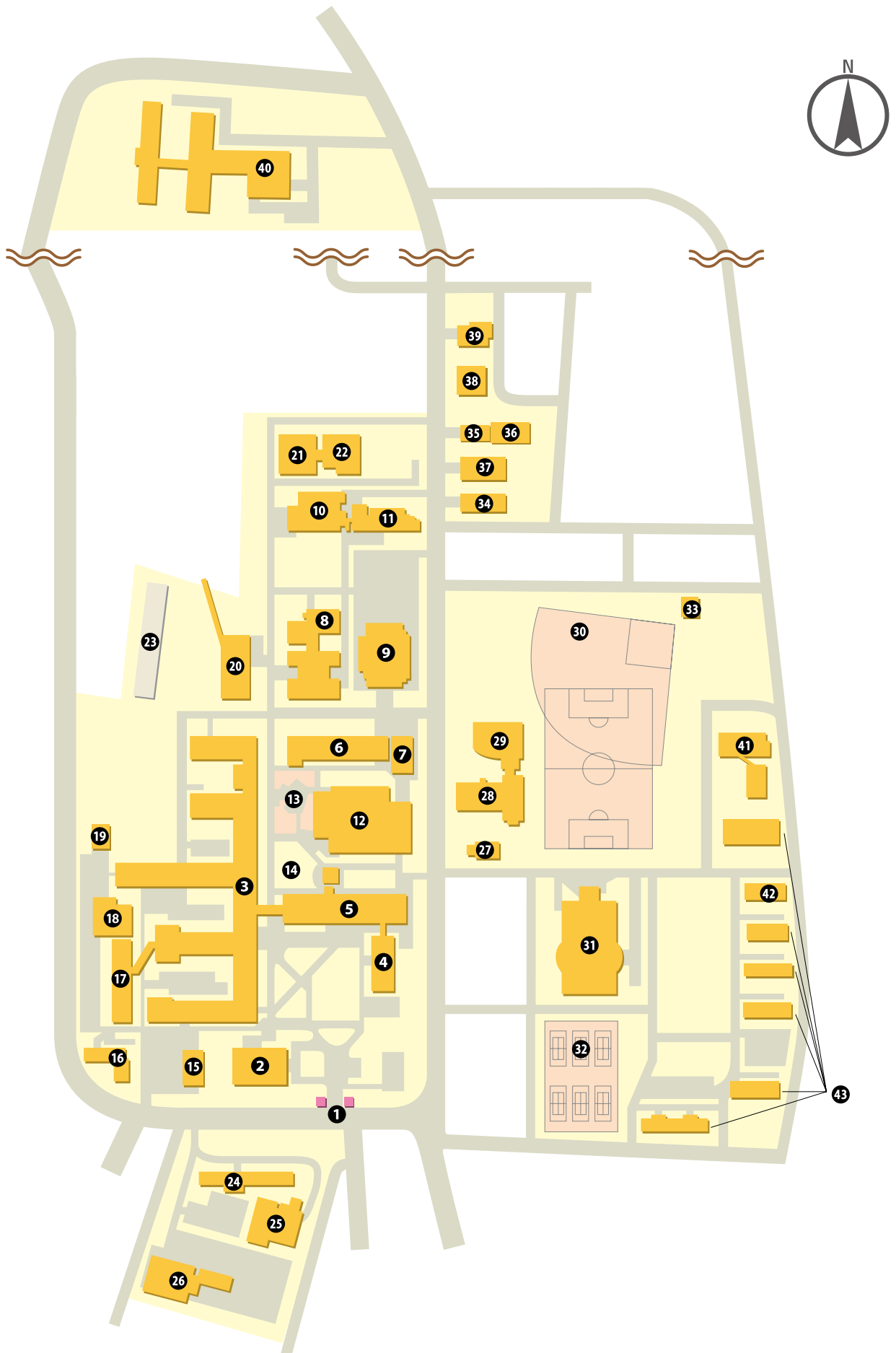
Campus and Facilities

Land and Buildings

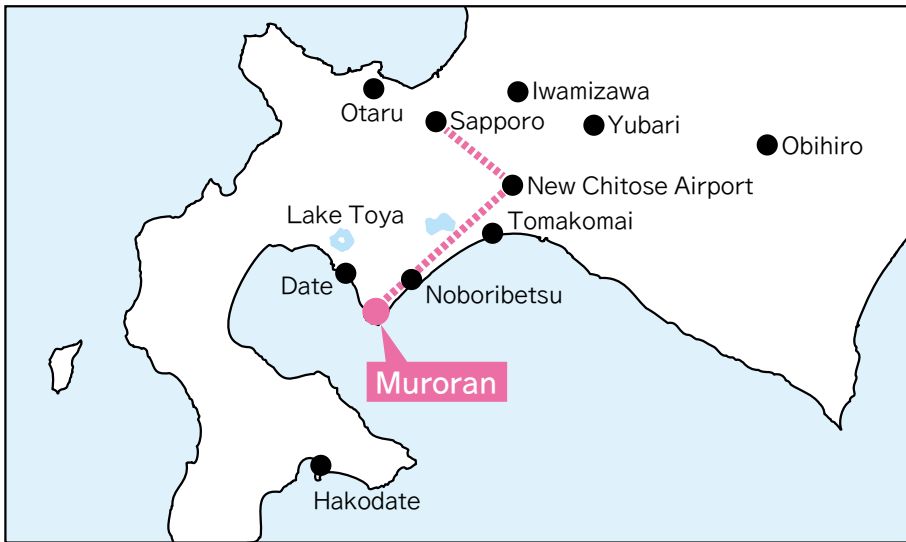
(Unit: m²)

No.	Abbreviation	Name of Building	Area of Land	Area of Building	Year of Construction (Year of Renovation)
1		Main Gate			
2		Administration Building		2,314	1987,2001
3	Bldgs. A-F	Education research building #1		20,560	1961-1968, 83, 84, 94, 09, 10(2006, 2009, 2010)
4	Bldg. Q	Education research building #2		3,014	1978 (2009)
5	Bldg. N	Education research building #3		6,079	1976, 1989, 94, 2020 (2018,2019)
6	Bldg. H	Education research building #4		5,471	1962, 64, 69, 85, 2013 (2013)
7	Bldg. U	Education research building #5		4,749	1979 (2014)
8	Bldg. K	Education research building #6		6,553	2002
9	Bldg. Y	Education research building #7		5,364	1981, 83, 89, 93, 2008 (2008)
10	Bldg. R	Education research building #8		4,468	1971, 86, 94, 2022 (1994, 2022)
11	Bldg. V	Education research building #9			
12		Library	89,592		
13		25 th Anniversary of University Establishment Memorial Plaza			
14		Passageway			
15		Garage		321	1987,1996
16		International Exchange House (Dormitory for Foreign Researcher, Dormitory for International Students 1)		737	1980, 82 (2012)
17		Manufacturing and Engineering Design Center		726	1966 (2006)
18		Laboratory for Structural Analysis		706	1983
19		Laboratory for Shock Test on Structures		145	1996
20		Power Center		950	1980
21		The Creative Collaboration Center		1,224	1999
22	Bldg. X	Education research building #12		1,600	1999
23		Archery Field			
24	Bldg. S	Education research building #10	13,224	1,738	1961 (1999)
25	Bldg. J	Education research building #11		1,459	1974 (2008)
26	Bldg. T	Education research building #13		2,035	1990, 2003 (2022)
27		Health Administration Center		247	1971, 2000 (2017)
28		University hall	10,534	2,704	1962, 71, 2000 (2000)
29		Cafeteria			
30		Athletic field			
31		Gymnasium	33,456	2,856	1996
32		Tennis courts			
33		Japanese archery hall		89	1983
34		Former Storehouse for gymnastic equipment		271	1968, 72
35		Facility for training camps		202	1980
36		Building #1 for club activities	7,652	771	1984
37		Building #2 for club activities		397	1973, 74
38		Building #3 for club activities		495	2008
39		Shared experiment facility		220	1976, 80, 81
40		Men's dormitory "Meitoku-Ryo"	15,980	6,661	1973, 2009 (2009, 10)
41		Women's dormitory "Meirinkan"	2,300	1,612	1973, 2011, 2016 (2011)
42		Former Dormitory for International Students 2	791	618	1965
43		Faculty housing	21,305	5,312	1964- 80
		Boathouse	200 (leased)	100	1996
		Aerospace Plane Research Center	17,744 (leased)	310	2008, 2018,2019,2020, 2022
		Potential Coal Energy Research Lab. at Mikasa	1,213 (leased)	229 (leased)	
		Dormitory for Foreign Students		158 (leased)	
		Tokyo Office		33 (leased)	
		Taiki Satellite Office		108 (leased)	
		Siranuka Satellite Office		148 (leased)	
		Other	349 (leased)	157	
Total			214,340	93,911	

■ Campus Map

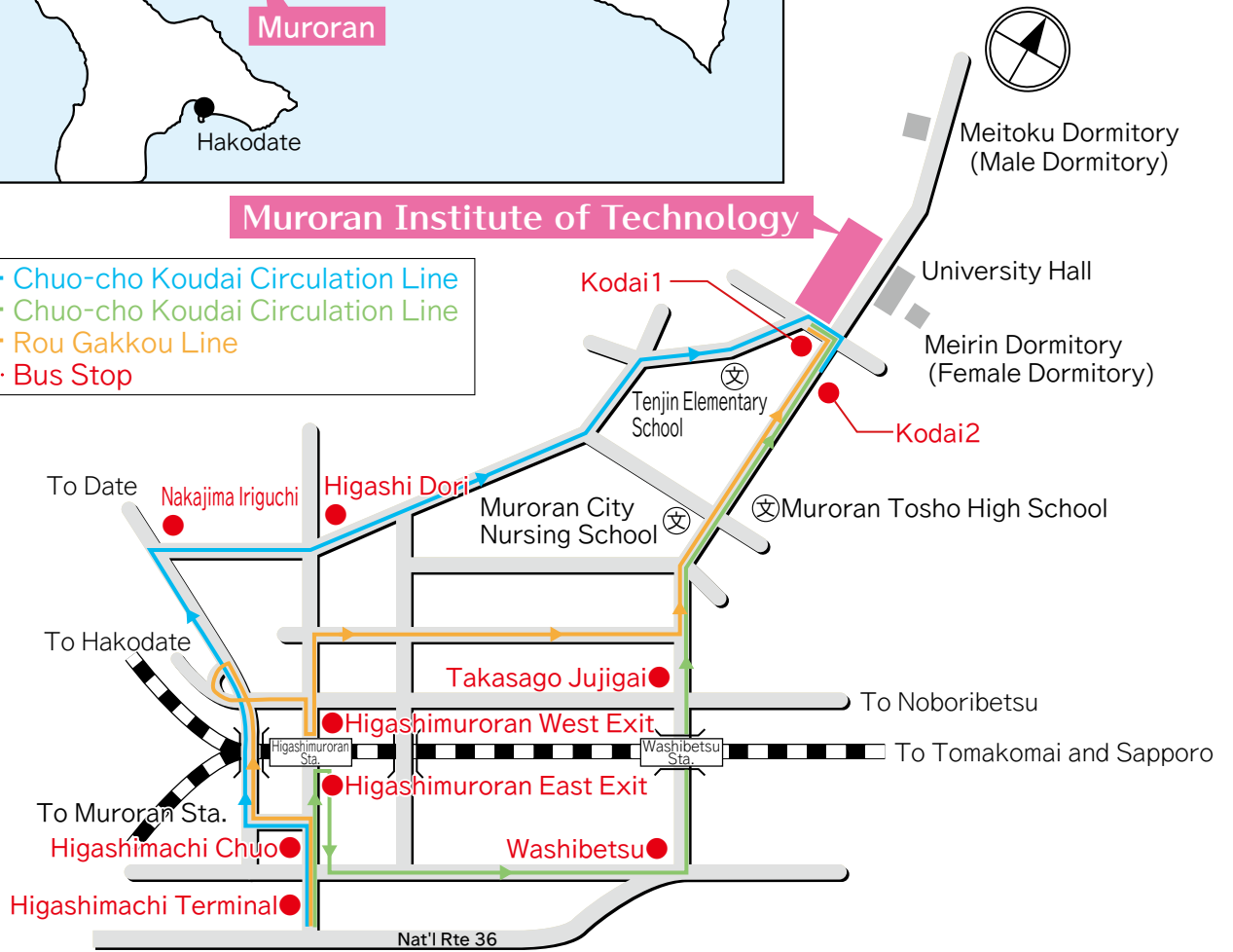


Access Map



Muroran Institute of Technology

- Chuo-cho Koudai Circulation Line
- Chuo-cho Koudai Circulation Line
- Rou Gakkou Line
- Bus Stop



Access

Sapporo Sta.	by JR limited express train about 1 hour 30 min.	Higashimuroran Sta.	Muroran Institute of Technology
	by express bus about 1 hour 50 min.		
New Chitose Airport	transfer to JR limited express train at Minami Chitose Sta. about 1 hour	Higashimuroran Sta.	Muroran Institute of Technology
	by express bus about 1 hour 30 min.		



Monument “New Breeze”

This monument was constructed in 1989 commemorating the 100th anniversary of the University’s establishment in Sapporo and the 50th anniversary in Muroran. The monument is 5m in height, 8m in width, 2m in depth and 6 tons in weight, and is made of “COR-TEN” steel, as Muroran is known as a city of steel. It symbolizes “youth,” “energy,” “soaring” and “infinity.”



New Logo for Muroran Institute of Technology

To commemorate the 60th anniversary of the founding of the university, a call was put out to design a new logo for the school. In 2009, this symbol was chosen. “M” stands for the first letter of the university’s name, and the shape of the letter portrays the symbol for infinity “∞”. The design of a fresh, young bud expresses the endless potential of the students at Muroran Institute of Technology.



Muropyon

MuroranIT Character

Similar to the logo, it was chosen from suggestions from the public when we celebrated the 60th anniversary in 2009. Capital “M” for Muroran Institute of Technology was impersonated as a star antenna, expressing the realization of our dreams with creative science and technology, and the dynamic first step towards a bright future.



Registration
No. HES2:0005

Hokkaido Environment Management System Standard (HES)

MuroranIT acquired the Hokkaido Environment Management System Standard (HES) Step 2 certification in March 2009. Currently, activities related to conservation and improvement of the environment are being carried out while maintaining the HES Step 2 level.

Muroran Institute of Technology

Address: 27-1 Mizumoto-cho, Muroran, Hokkaido, 050-8585, Japan

Tel: 81-(0)143-46-5000

E-mail: koho@muroran-it.ac.jp

URL: <https://muroran-it.ac.jp/>

Published by Public Relations Office, Muroran Institute of Technology

Tel: 81-(0)143-46-5014



National University Corporation

MURORAN INSTITUTE OF TECHNOLOGY

Educational capabilities based on well-established research expertise