

# Johodai at a Glance

ICT: Make Your Future Now



Graduate School  
Graduate School of Business Administration and  
Information Science (Master's Degree Course)

Faculty of Business Administration and Information Science  
**Department of Business and Information Systems**

Business Design  
Regional Business

Faculty of Business Administration and Information Science  
**Department of Systems and Informatics**

Information Systems  
Space Information

Faculty of Medical Informatics  
**Department of Medical Management and Informatics**

Medical Management and Informatics  
Clinical Engineering

Faculty of Information Media  
**Department of Information Media**

Media Design  
Media Technology

Faculty of Business Administration and Information Science  
**School of Distance Learning**

Department of Management and Information Networks  
Department of Systems and Informatics

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# Providing ICT Skills to Help You Succeed “Make a Difference”

理事長 松尾 泰



## Chairman Toru Matsuo

After graduating from the Faculty of Economics at Keio University in Tokyo, Toru Matsuo worked at Arthur Andersen & Co., until becoming the representative director and president of Software Consultant Corporation (SCC) in 1993. He became a director of the Electronics Development Computer college (eDC) Group in December 1988, and has since contributed greatly to the development of Hokkaido Information University, playing a role in its foundation, as well as opening the School of Distance Learning and establishing the Graduate School. He became chairman of the eDC Group in September 1998.

## Founding Principle

Hokkaido Information University was founded in 1989 by Dr. Saburo Matsuo, father of the current eDC Group president and a pioneer of information education in Japan, whose goal was to create a university with new academic fields for an information-oriented society.



## Educational Aims

The goal of Hokkaido Information University (HIU) is to educate new generations of professionals capable of independently identifying and addressing problems using information and communication technologies (ICT) while developing an open mind, self-expression skills, and teamwork competence. To achieve this aim, HIU seeks students with sound scholastic ability, reasoning skills, and the motivation to both learn and be involved in extracurricular activities. This goal is reflected in our Diploma Policy, where six fundamental criteria, which are the core of the school's educational aims, are listed. Hokkaido Information University strives to graduate students who, by taking courses and engaging in extracurricular activities, will develop and value:

- A capacity for lifelong self-learning
- Advanced IT skills and expert knowledge to contribute to the development of an information society
- A deep sense of humanity, including international awareness and morals
- Solid communication, expression and presentation skills
- Skills to independently identify and solve problems using IT
- Wisdom to live by

# Teaching and Learning Enhanced by Digital Technology



## President Dr. Jun Nishihira

After graduating from the Department of Medicine at Hokkaido University's School of Medicine in 1979, Dr. Nishihira worked as an intern at the United States Naval Hospital in Yokosuka, Japan, and as a lecturer in the Second Department of Internal Medicine at Hokkaido University's School of Medicine. In 1984, he became a post-doctoral fellow at the Bowman Gray School of Medicine at Wake Forest University, North Carolina. He worked as a lecturer at the Central Research Institute of Hokkaido University's School of Medicine from 1992, and engaged in research from 1998 as an associate professor in the Department of Molecular Chemistry at Hokkaido University's Graduate School of Medicine. Since 2006, he has served as a professor in the Department of Medical Management and Informatics at Hokkaido Information University, becoming vice president in April 2017, and then president in April 2021.



## Vice-President Dr. Shigeto Watanabe

Having completed his doctorate in science in the Graduate School of Science at Tohoku University in 1984, Dr. Watanabe became an associate professor in the Faculty of Science there in 1995. In 1998 he became a professor in Hokkaido University's Faculty of Science. He joined Hokkaido Information University as a professor in the Faculty of Business Administration and Information Science in 2014, and became professor emeritus at Hokkaido University in 2017. From 2017 to 2019 Dr. Watanabe served as chairman of the Society of Geomagnetism and Earth, Planetary and Space Sciences, and became vice-president at Hokkaido Information University in 2021.



Dean  
Faculty of Business Administration  
and Information Science

**Prof. Nami Takai**



Dean  
Faculty of Medical Informatics

**Dr. Toshiya Nishibe**



Dean  
Faculty of Information Media

**Dr. Shinya Matsui**

## University Goals

The dawn of the Information Age saw a proliferation of international information systems. With "Information" as part of our school name, HIU supports the next generation of information and communication technology professionals, promoting the value of internationalization, innovation, and a sense of humanity. Our nationally recognized School of Distance Learning provides learning opportunities for students across the country. Our goals as a university are to:

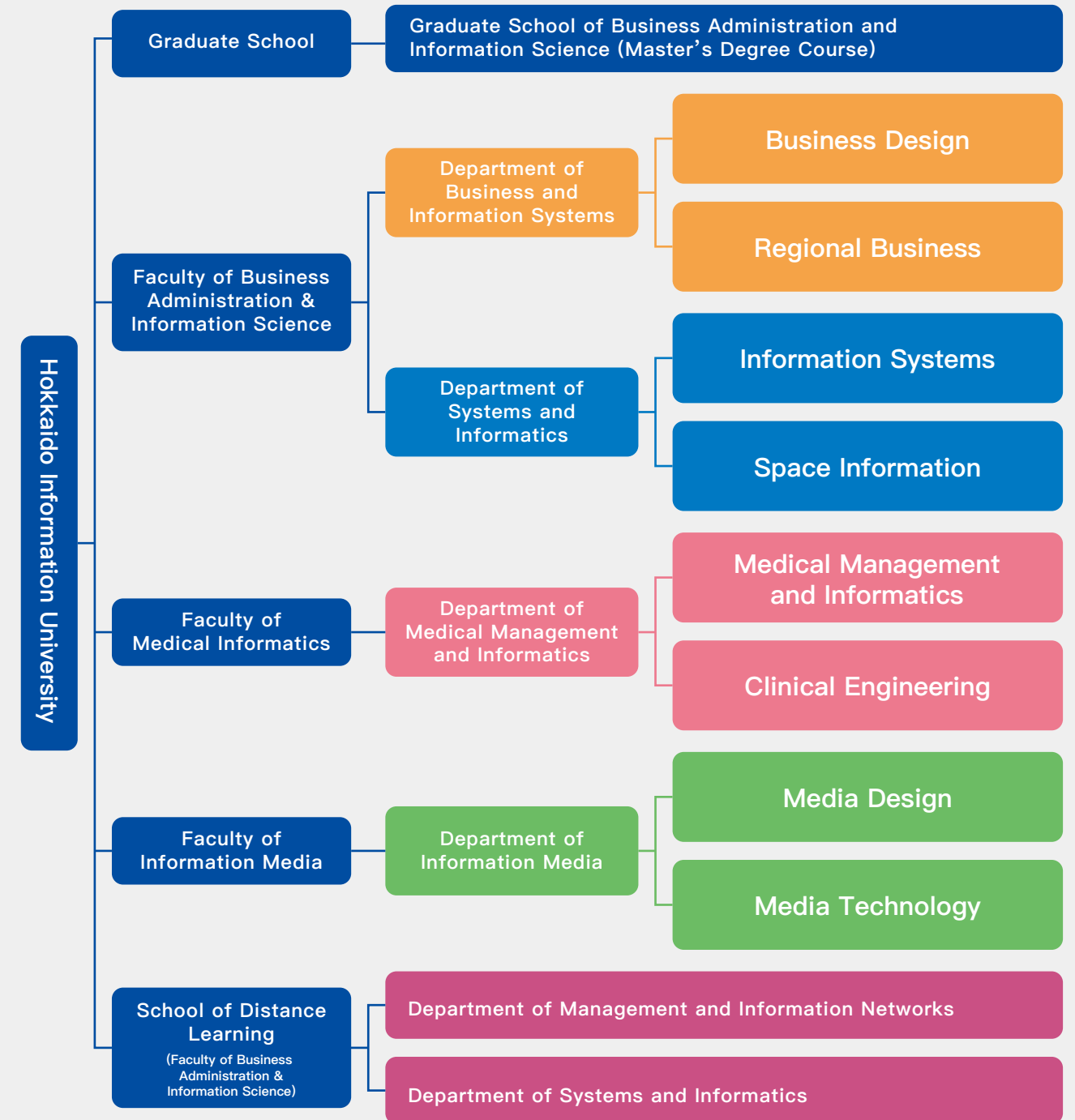
- train highly skilled information specialists
- provide access to any students wanting to learn, either on-campus or off-campus
- offer a liberal arts education that develops an international awareness and sense of humanity
- create and maintain regional collaboration between academia and industry



### Curriculum Relevant to Industry

Hokkaido Information University (HIU) is a member of the Electronics Development Computer college (eDC) Group. The eDC Group is comprised of industrial, educational and research organizations. These include: Software Consultant Corporation (SCC), a software company that develops both business and educational software; Space Engineering Development Co., Ltd. (SED), which is at the forefront of space development activities in Japan; and Hokkaido Institute of Information Technology (HiIT), a research center involved with satellite-based communications networking and multimedia systems development. These organizations are characterized by the three domains of systems development, space development, and IT education. Because of its affiliation with these IT research-based organizations, HIU offers a curriculum and learning environment that encompass new technology and are relevant to industry.

## Faculties, Departments and Courses: An Overview



### Available Courses

The three faculties offer a total of fifteen specialist field designed for the needs of people wishing to embark on careers in these areas, or those desiring to further refine already-acquired skills. The Department of Business and Information Systems offers two dedicated field, focusing on developing abilities, identifying opportunities and exploring digital business. The sister Department of Systems and Informatics offers a further four fields which provide the next generation of software engineers and IT professionals with essential skills. The Department of Medical Management offers four specific information-based fields. The Department of Information Media covers a wide spectrum of topics including five specialty fields, ranging from Graphic Design to Mobile Applications to Video & Animation. See the appropriate pages for further details.





### Truly Useful Skills Focused on the Businesses of the Future

The Business Design and Regional Business majors create business professionals with a strong command of information and communication technology. Upon a foundation of theory including management, economics, accounting, law, and more, students learn about the architecture and potential of digital businesses actually deployed on the market, and explore their ever-expanding potential and appeal.

### Recognizing the Value of Technology to Refine Management Mindsets

New styles of business are created by leveraging ICT (Information and Communication Technology). For instance, IoT (Internet of Things) is poised to redefine expectations for household appliances. The significance of education at Johodai, with a core focus on “information”, truly lies in such aspects. In today’s context, conceptualizing business directly contributes to corporate development. Future leaders with such vision and skills are highly sought by industry.

### Practical Foundations for Future Specialization

At HIU, students select their majors in the second year of study. To foster the ability to discern valuable information, courses encourage broader points of view, strengthen logical reasoning skills, and cultivate critical thinking. Throughout their four years, students are continuously exposed to classes which promote multicultural understanding and develop excellent global awareness.

#### Business Design Major

##### Business Design

These fields develop skills to organize, manage, and orient businesses towards success by analyzing information with the latest technologies, such as artificial intelligence. While broadly learning business fundamentals, students will have many opportunities to test their new skills in practical simulations. We aim to create professionals with business design skills, which are highly sought in various industries.

#### Regional Business Major

##### Regional Business

Strong understanding of local regional issues forms the foundation to acquire the knowledge and skills needed to create new businesses through a combination of advanced, ICT-derived approaches and flexible thinking. These courses create professionals who can turn problems into business opportunities which can revitalize local regions.

### Study Networking, Security, and Artificial Intelligence

The information systems that enable IT services themselves rely upon fundamental technologies such as networking, security, and databases. As applications of artificial intelligence rapidly advance, understanding the underlying mechanisms of AI is crucial to delve beyond superficial utilization. The faculty of these programs comprises researchers in these fields, who offer lectures ranging from fundamental subjects to the latest technologies.

### Emphasis on Practical Exercises with Hands-on Computing

Even with excellent lectures, it can be difficult to truly master skills and knowledge through classwork and textbooks alone. That is why we incorporate many opportunities to put new knowledge into practice with hands-on computing exercises. Network access is provided, so that students may use laptops to access class materials and their own project files.

### Learn Highly-sought, Real-world Skills and Obtain Qualifications

Our curriculum and lesson plans are carefully designed in recognition of the importance of both theoretical understanding and practical skills, complemented by excellent communication abilities, to achieve success in today’s world. For example, we provide many opportunities for practical experience, conduct PBL (Project-Based Learning) hands-on group work lessons, with a strong focus on learner-centered education.

#### Information Systems Major

##### System Engineering

This field fosters next-generation system specialists with mastery of a wide range of knowledge and skills essential for information system design, architecture, and operation.

##### Artificial Intelligence

This field fosters AI engineers with expertise in AI theory, and data scientists who are capable of analyzing big data and extracting information for business applications.

##### Network Security

This field fosters experts with in-depth knowledge and skills to succeed in areas such as system architecture and monitoring.

#### Space Information Major

##### Space Information Systems

This field provides knowledge and skills essential for space exploration and utilization of space information, such as development of high-quality, high-reliability software to control satellite operations, and remote sensing technologies to receive signals from satellites.





## Combine ICT with Medicine and Healthcare for even Greater Future Possibilities

The Medical Information Major offered by HIU's Department of Medical Management and Informatics adds medicine and healthcare studies to our long-cherished history of excellent information and communication technology (ICT) education. There is high demand for ICT experts throughout the field of healthcare, and likewise, engineers with healthcare expertise are actively sought by the ICT industry as it strives to provide higher-quality systems that will support the future of the healthcare field. The Medical Information Major is a stage to create professionals who will play critical future roles in the intersection of ICT and healthcare.

## Master Real-world Skills Crucial for Clinical Engineers of the Future

This major provides instruction in highly-specialized medical fields such as clinical engineering and medicine, together with HIU's acclaimed ICT education. Leveraging HIU's considerable ICT education expertise will create clinical engineering professionals who are perfectly matched to near-future needs.

### Medical Information Major

#### Medical Informatics Engineering

Broadly-structured curricula incorporate subjects such as AI and IoT to create systems engineers specializing in advanced medical informatics.

#### Medical Care Informatics Management

Progressing from fundamentals to advanced applications, we will methodically accumulate knowledge in three domains: information, medical care / medicine, and medical care systems.

#### Health Information Science

Based on medical fundamentals, we will systematically study the relationship between food function and human health, including interaction with disease, enabling students to obtain qualification as a Functional Food Consultant.

### Clinical Engineering Major

#### Clinical Engineering Technologist

This field aims for success in the Clinical Engineer Technologist national qualification exam through a blend of studies in medicine, engineering, and information to develop knowledge from fundamentals through to practical applications.

## Combining Theory and Practice to Develop Truly Practical Skills

Without practical skills, knowledge alone is not enough to achieve success in society. Through a curriculum that emphasizes a balance between theory and practice, we develop truly practical skills.

## A Faculty of Active Creators and Researchers

Faculty includes active creators such as movie directors, filmmakers, web designers, and game programmers, together with researchers in cutting-edge fields such as AI and security, who provide education focused on real-world learning experiences.

## Freedom to Explore Courses Outside of the Major or Specialization

Most courses may be taken by any student, regardless of major or field of specialization. Students are free to focus their interests on a single field, or learn skills in multiple fields, freely exploring the path of education towards their own goals.

According to their goals, students may select courses distributed across five fields.



#### Technology Major

Starting with fundamentals such as programming exercises, this major evolves into project-based learning focusing on practical challenges. Through creation of games and apps, students develop skills needed to precisely handle and convey information.

#### Design Major

From design fundamentals, this major progresses to project-based learning focusing on practical challenges. Through media such as video and graphics, students develop the planning and expression skills to accurately and compellingly convey information to their audiences.

#### Interactive Media & Games

Students will learn development methodology of interactive systems that incorporate VR/AR, and take this knowledge further to study the design and production of games based on these technologies.

#### Sound & Video

Studies include the principles and techniques for expression and production of 3D CG, graphics, and animation. Additionally, students will explore areas such as sound production techniques, media art design and production.

#### Graphics & UI/UX Design

Studies will cover the knowledge and skills for graphic design of media such as posters and magazines, as well as design for advertising, packaging, and more. Throughout the curriculum, this field emphasizes design based on understanding of UI/UX.

#### Media Data Science

Students will learn to visualize and analyze big data obtained from various sensors, as well as from audio, graphics, and video. This field further explores methods to leverage this data for practical applications such as AI.

#### Internet Media

Topics will span website planning and production to server architecture methods, as well as security systems to facilitate their reliable and safe operation.





“Follow Your Dreams”

**Aiming to become specialists in our fields, with advanced expertise and the skills to pioneer a new generation.**

HIU's Graduate School cultivates specialized knowledge and skills through research activity. Over the course of two years, students will obtain a minimum of 30 credits, including publication of a master's thesis, to be granted a Master's Degree in Business Information Studies. Research is focused on the four fields listed below.

**No restrictions on age or nationality. All with passionate intellectual curiosity may apply.**

Enrolment is open to general university graduates or expected graduates, as well as selected working professionals with two years or more of social experience after university graduation. Special selections are also conducted for foreign exchange students. We are committed to encouraging the intellectual curiosity of more and more people as we foster an inclusive, diverse, and globally rich student body into professionals for a new generation.

**Digital Business Management**

**Creating Highly-specialized Professionals to Lead a New Era of Business**

This field develops practical and research skills for future leaders who understand the essentials of digital business, expanding students' ability to draw up business proposals and manage development projects.

**System Design**

**Completely Master the Potential of Systems, Networks, and Information Processing**

Extensively researching practical system design technology, network technology, and information processing technology, this program provides knowledge and skills leading to national qualifications in each area. We maximize the value of our superior practical environments to produce specialist professionals whose skills are firmly backed by theory.

**Medical & Healthcare IT**

**Leveraging Medical and Health Information to Provide Solutions to Society's Needs**

This program aims to cultivate Healthcare Information Experts - advanced professionals who will shape the future of society. Studies provide cutting-edge specialized knowledge and analytical skills in the rapidly digitizing field of medical and healthcare, including digitization of medical diagnoses and utilization of big data in medical and health information.

**Creative Media**

**Pioneering New Areas in Information Media**

We focus on elevating information technology and media knowledge and skills, creating information media professionals capable of producing imaginative and innovative content. We explore practical creation in areas such as image processing, video, still images, knowledge-based media, intelligent media, and media design.

**A Place to Study and Make Friends**

Located just 20 kilometers from Sapporo, Johodai is situated in Ebetsu, near three other universities. The campus is easily accessed by express bus, train, car or subway and local bus. The majority of students are from Hokkaido, but also come from as far away as Okinawa.



**Social and Sports Events and Clubs**

There are more than 46 student-run clubs and circles at HIU. These social groups are diverse, including a guitar circle, a desktop music group, an app development club, and a baseball team. Additionally, HIU hosts a university festival and an intermural sports carnival annually over two-day periods.

**Embracing Mobile Technology**

HIU promotes IT-based active mobile learning. To this end, it furnishes laptop computers to all students. Mobile learning not only enhances students' access to learning materials but also helps them develop a familiarity with technology that is essential to daily life in today's workforce.



**International Programs**

HIU maintains relations and agreements with 11 universities in 6 countries. Programs include student exchange, study abroad, language study, faculty exchange and collaborative research.

**A Final Word**

HIU's first President (1989~1998) Dr. Shigenori Kinoshita wrote, “いつも自分自身で考えてもらいたい” (Itsumo jibun jishin de kangaete moritai), which translates as “I want you to always think for yourselves”. Good advice indeed!