

# COLLEGE CATALOGUE

🌱 National Institute of Technology, Toyama College

## 1. Introduction

## Greetings from President



### President ISHIHARA Sotomi

## Education Philosophies

Originality and Creation Autonomy and Independence Coexistence and Symbiosis

In October, 2009, National Institute of Technology, Toyama College was established by integrating two national technical colleges, Toyama National College of Technology and Toyama National College of Maritime Technology, which located in Toyama Prefecture at the time.

Our college has six departments: (1) Department of Mechanical Engineering, (2) Department of Electrical and Control Systems Engineering, (3) Department of Applied Chemistry, Chemical Engineering, (4) Department of Electronics and Computer Engineering, (5) Department of International Business and (6) Department of Maritime Technology. Four of them are engineering departments, one is a liberal art department and one is a maritime department. So, our college has many (three) different education fields. This is quite unique and favorable to us compared to other colleges in Japan.

National Institute of Technology, Toyama College has three education philosophies: "Originality and Creation," "Autonomy and Independence" and "Coexistence and Symbiosis." The meaning of the first one is thinking about new ideas and things and then making them by self. The second one means always acting voluntarily and persevering to achieve something with patience. And the third one means acknowledging others and coexisting with them.

National Institute of Technology, Toyama College conducts five-year of consistent education in order to equip the students with a deeper understanding and provide practical skills under the education philosophies mentioned above. For example, in academic departments, general liberal arts courses including humanities and social sciences, and the specialized courses that require experiments and practical training and exercises in professional fields are also conducted. Four engineering departments develop engineers with basic technologies for a wide range of fields and with a problem solving abilities that are appropriate for the industry requirements. Department of International Business develops business graduates who can contribute to local communities and local industries, and Department of Maritime Technology develops human resources who can play an active role as ship officers in-charge of shipping circles of Japan.

In all these fields, in order to develop human resources who offer a global perspective and can internationally play an active role, we provide overseas training, cross-cultural experience, overseas internships and other programs in cooperation with higher education institutions located in America, Europe and Asia.

In National Institute of Technology, Toyama College, all teaching faculty members continuously strive to earn the admiration of local people and to become a trusted higher education institution.

We would like your continuous guidance, support and valuable feedback.

### Contents

1. Introduction	1
2. Organization	5
3. Departments	— 7
4. Advanced Courses	— 14
5. Faculty Members List	— 16
6. Office of Product Development and Community Outreach —	— 19
7. Facilities —	21
8. School Life	22
9. Collaboration with Local Communities	24
10. Research Work ————————————	25
11. International Exchange Programs —————	26
12. Financial Affairs	
13. Enrollment Statistics ——————————	30
14. Alumni Post-Graduation Employment / Education	



## Educational Objectives

# 1. Development of human resources with both specialized knowledge and skills that can contribute to promote research and development and business in the future.

The objective of the National Institute of Technology, Toyama College is "Development of creative human resources with practical and specialized knowledge and skills." To attain this objective, we educate each student to meet their hope and at the same time respond to the needs of society. Particularly, we develop human resources that can play an active part in both research and development and local business.

# 2. Development of human resources with the ability to think by themselves and act independently.

Our college develops human resources that can think by themselves and act independently utilizing technology. For making better society, it is important to communicate your ideas with others and act by cooperating with people around you.

# 3. Development of human resources with a broad education, with sense of ethics, and with the spirit of coexistence with others.

In order to play an important role in the fields of both research and development and business, it is essential to understand the effects of technology and business on society and nature, and to acknowledge the responsibilities of both engineers and business persons. Therefore, we develop human resources that respect the ethics of engineers and possess the spirit of coexistence with nature and the earth.

### Admission Policies for the Program of Associate bachelor's Degree

This college respects the individuality of each student and helps each one to acquire his/her capabilities through its well-developed cultural education as well as its practical and specialized education. The program that we offer will be given to students from the viewpoint of the Sea of Japan Rim Region.

Based on the above policies, each department seeks the following students who demonstrate consideration for people, society, nature and the environment:

### Department of Mechanical Engineering

- 1. Students who are interested in machines, structures and mechanical systems
- 2. Students who want to become mechanical engineers with a fertile creative mind
- 3. Students who want to create systems from energy to recycling and contribute to society

### Department of Electrical and Control Systems Engineering

- 1. Students who are interested in manufacturing such as electronic work and mechanical work
- 2. Students who want to acquire integrated knowledge of electronics, machinery and information technology; which is required in such as robot technology
- 3. Students who want to be engineers with the ability to think by themselves and act independently, and contribute to society

### Department of Applied Chemistry and Chemical Engineering

- 1. Students who are interested in the world of chemistry
- 2.Students who aim to develop harmless manufacturing method for earth and people
- 3.Students who want to contribute to building a sustainable society

### Department of Electronics and Computer Engineering

- 1. Students who like manufacturing and are interested in computers
- 2. Students who want to acquire integrated technology of information, electronics, and communication
- 3. Students who want to become engineers that can think by themselves and act independently, and to contribute to society

### Department of International Business

- 1.Students who are interested in foreign languages and different cultures
- 2. Students who want to acquire knowledge of business fields
- 3. Students who want to play active roles in society with a global perspective

### Department of Maritime Technology

- 1. Students who respect oceans and nature
- 2. Students who aim to become captains or chiefs of a vessel
- 3. Students who aim to become engineers of large machinery
- 4. Students who want to play active roles in countries all across the world

## Admission Policies for Advanced Course

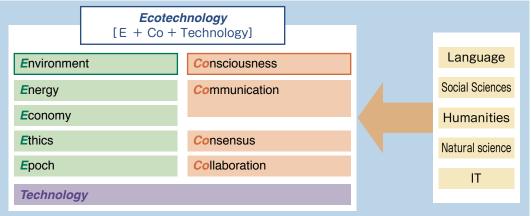
The Advanced Course aims to develop human resources that have a broad education and sophisticated specialized knowledge. Based on the above policies, each advanced course seeks the following students:

- 1.Students who want to improve their specialized basic academic skills, and further acquire design abilities that can be obtained with association with practical skills and multifaceted way of thinking
- 2.Students who want to acquire the ability to conduct research and development and who can continuously make an effort to solve a problem
- 3.Students who respect ethics as members of society and want to contribute to society as specialists with a global perspective

## Educational Program for JABEE

The ECOdesign Engineering Course and Control Information Systems Engineering Course of the Advanced Course provide the following educational programs with students. These educational programs have been approved by the Japan Accreditation Board for Engineering Education (JABEE). Students of these two courses are required to complete a course of these educational programs.

#### **ECOdesign Engineering Program** (Hongo Campus) **The ECOdesign Engineering Course provides the educational program, "ECOdesign Engineering", with students. This program is carried out in the fourth and fifth years in three departments, mechanical engineering, electrical and control systems engineering, and applied chemistry and chemical engineering, and in the first and second years in the ECOdesign Engineering Course (Advanced Course).**



### Control Information Systems Engineering Program (Imizu Campus)

The Control Information Systems Engineering Course provides the educational program, "Computer Systems Engineering (CSS) 2008", with students. This program is carried out in the fourth and fifth years in Department of Electronics and Computer Engineering, and in the first and second years in the Control Information Systems Engineering Course (Advanced Course).

Development of	of engineers who can build world-class systems
	Control Information Systems
Research / Analysis Plan	Natural phenomenon / Social phenomenon / Artificial phenomenon / Virtual phenomenon / Industry theory / International relations / Ethics
Design / Modeling Design	Mathematics / Physics / Applied mathematics / Applied physics / Basic specialized courses
Manufacturing including simulation Do	Experiments and practical training / Measurement controls / Predictions / Recommendations / Mathematical engineering / Simulations
Verification / Evaluation	
including presentations See	Japanese / English / Overseas Internship / Economics / Law / Presentations
and communication	
Create	Development of abilities for system creation

## External (third-party) evaluation on education system

### **1** Accreditation by the National Institution for Academic Degrees and University Evaluation

National Institute of Technologies (Colleges) are required to be periodically evaluated by the evaluation organizations that has officially certified by the Minister of Education about enforcement situations of both education and research.

Before unification of our college in 2009, Toyama National College of Maritime Technology and Toyama National College of Technology were audited in 2005 and 2007, respectively, for accreditation as a high educational institution and received certification that the evaluation standards for the high educational institution had been met.

The accreditation is conducted for the following purposes, and the evaluation results and the self-evaluation statements are published on the website to provide the status of educational and research activities of our college to society.

- 1. To assure the quality of educational and research activities of colleges by periodically evaluating colleges according to the evaluation standards, which were prescribed by the National Institution for Academic Degrees and University Evaluation.
- 2. To improve the educational and research activities of the college by sending back the evaluation results to each college.
- 3. To promote the public's understanding that a college has been established and operated as a public institution by clarifying and publishing educational and research activities of the college.

### 2 Review of Advanced Course by the National Institution for Academic Degrees and University Evaluation

This college has four advanced courses corresponding to six departments: ECOdesign Course, Control Information Systems Engineering Course, International Business Course, and Maritime System Engineering Course.

The education system of advanced course receives a review by the National Institution for Academic Degrees and University Evaluation every five years. Our advanced courses were reviewed and certified in 2009.

As for the three courses, ECOdesign Engineering Course, Control Information Systems Engineering Course and Maritime System Engineering Course, the accreditation based on the special application related to conferment of a bachelor's degree has been provided by the National Institution for Academic Degrees and University Evaluation.

Thanks to the accreditation based on the special application, for the student of the above stated three courses who entered this college after 2014, tests related to academic results will not be conducted and documents to be submitted will be simplified in application of conferment of a bachelor's degree.

And as for the International Business Course, we propose a special application certification in the school year of 2015.

### **3** Review by Japan Accreditation Board for Engineering Education (JABEE)

Advanced Course provide the ECOdesign Engineering Course and Control Information Systems Engineering Course with students. These two programs are carried out in the fourth and fifth years of the associate bachelor's course, and in the first and second years of the Advanced Course. These educational programs have been approved by the Japan Accreditation Board for Engineering Education (JABEE). The former was approved in 2004 and was certified again in a continuing review in 2009. The latter was approved in 2008, and was certified again in a continuing review in 2014. Students of these two courses are required to complete courses of these educational programs.

### 4 Certification Review of Department of Maritime Technology as STCW Educational Institution

The education program of the Department of Maritime Technology aims to acquire a maritime officer's certificate (International standard) at the time of graduation, and is reviewed by the Ministry of Land, Infrastructure, Transport and Tourism every five years. The Ministry of Land, Infrastructure, Transport and Tourism reviews and certifies that education programs of the educational institutions for maritime officers in Japan meet STCW (Standards of Training, Certification and Watch keeping for Seafarers) and reports the status to IMO (International Maritime Organization). The Department of Maritime Technology of the National Institute of Technology, Toyama College is certified as a proper educational institution for maritime officers by the Quality Standard System according to STCW.

## History of National Institute of Technology, Toyama College

### History of Toyama National College of Technology (Prior to 2009)

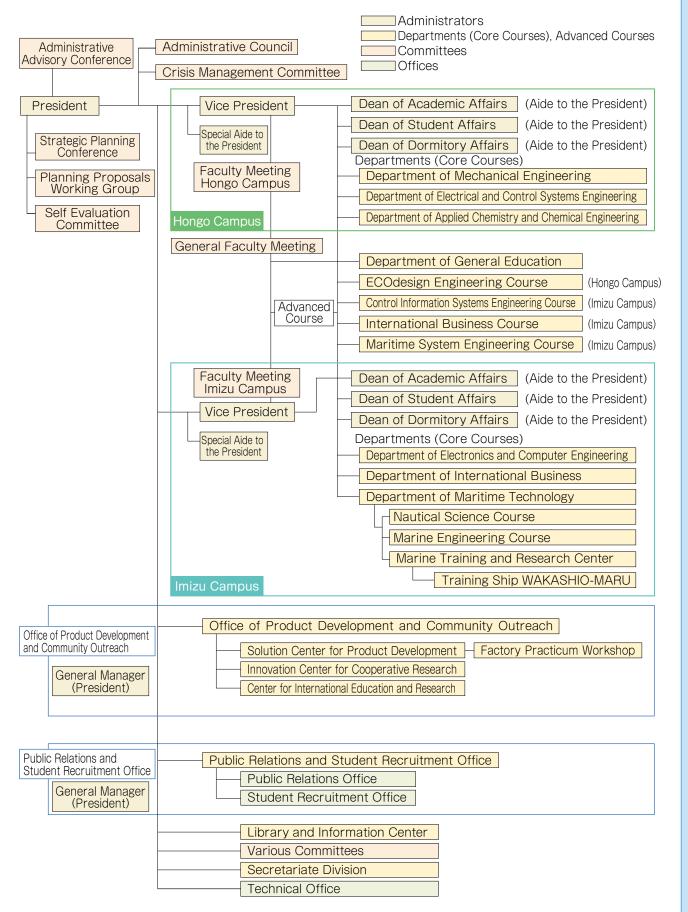
April 1964	Toyama National College of Technology, consisting of the Department of Mechanical Engineering, Electrical Engineering and Industrial Chemistry, established
April 1969	Newly established Department of Metallurgical Engineering
April 1989	Department of Industrial Chemistry was reorganized into the Department of Chemical and Biochemical Engineering
April 1993	Advanced Courses with a Mechanical and Electrical System Engineering Course and Functional Materials Engineering Course, established.
October 1994	Toyama National College of Technology, 30th anniversary The 1st ASIAN SYMPOSIUM ON ECOTECHNOLOGY- Toyama '94
April 1995	Department of Metallurgical Engineering reorganized into the Department of Ecomaterials Engineering.
April 2004	Toyama National College of Technology, Institute of National Colleges of Technology (Independent Administrative Corporation) established
May 2005	School Education Program (ECOdesign Engineering) accredited by JABEE (Japan Accreditation Board for Engineering Education)
October 2007	14th ASIAN SYMPOSIUM ON ECOTECHNOLOGY at KyungHee University in Korea (Sponsor: Institute of National Colleges of Technology, Managed by: Toyama National College of Technology)
November 2007	School Activates for "EcoAction 21" authorized and registered by the Institute of Global Environmental Strategies Center for Sustainability
March 2008	School Curriculum certified as a College of Technology Accreditation by the National Institution for Academic Degrees and University Evaluation

### History of Toyama National College of Maritime Technology (Prior to 2009)

July 1906	Shinminato First Grade Mercantile Marine School established
April 1909	Transfer of administration to Toyama Prefecture
August 1939	Renamed Toyama Prefectural Marine School Transfer of administration to the Ministry of Education Renamed Toyama National Mercantile
June 1967	Marine School Renamed Toyama National College of Maritime Technology (Department of Nautical Engineering and Department of Marine Engineering)
March 1969	Location changed to the present campus (Ebie Neriya, Imizu City) Size of Department of Nautical Engineering increased by one class
April 1985	Two classes of the Nautical Engineering Department reorganized into one Department of Computer Engineering established
April 1988	Departments of Nautical Engineering and Marine Engineering combined into the Department of Maritime Technology (Nautical Science and Marine Engineering courses) Department of Electronics and Control
April 1996	Engineering established Department of International Trade and Transport established
April 2004	Toyama National College of Technology, Institute of National Colleges of Technology (Independent Administrative Corporation) established
April 2005	The Advanced Course established (Maritime System Engineering, Control Information Systems Engineering)
March 2006	School Curriculum certified as a College of Technology Accreditation by the National Institution for Academic Degrees and University Evaluation
October 2006 April 2009	100th Anniversary ceremony held School Education Program (Control Information Systems Engineering) accredited by JABEE (Japan Accreditation Board for Engineering Education)

### History of National Institute of Technology, Toyama College

October 2009	National Institute of Technology, Toyama College established (Department of Mechanical Engineering,	
	Department of Electrical and Control Systems Engineering, Department of Applied Chemistry and Chemical	
	Engineering, Department of Electronics and Computer Engineering, Department of International Business,	
	Department of Maritime Technology and Advanced Course)	
April 2010	New students of Core Course and Advanced Course start school	
March 2015	First graduation ceremony held for the first year's intake (2010) for the new school	



## Organizational Chart

## Administration Staff

Hongo Campus	
Special Aide to the President	NARUSE Yoshinori
Vice President (Imizu Campus)	SHINKAI Junko
Vice President (Hongo Campus)	NISHIDA Hitoshi
President	ISHIHARA Sotomi

Dean of Academic Affairs (Aide to the President)NISHI ToshiyukiDean of Student Affairs (Aide to the President)AOYAMA AkikoDean of Dormitory Affairs (Aide to the President)TAKAKUMA TetsuyaDepartment Chair, Mechanical EngineeringTERANISHI TsunenobuDepartment Chair, Electrical and Control Systems EngineeringSHIBATA HiroshiDepartment Chair, Applied Chemistry and Chemical EngineeringGOTO Michimasa

### Imizu Campus

Dean of Academic Affairs (Aide to the President) NAKATANI Toshihiko Dean of Student Affairs (Aide to the President) TSUKADA Akira Dean of Dormitory Affairs (Aide to the President) TOGA Shinji Department Chair, Electronics and Computer Engineering MIZUMOTO Iwao Department Chair, International Business NISHIHARA Masahiro Department Chair, Maritime Technology MIZUTANI Junnosuke Chief, Nautical Science Course CHIBA Hajime Chief, Marine Engineering Course MIZUTANI Junnosuke Director, Marine Training and Research Center CHIBA Hajime Captain, Training Ship NAKAGAWA Hiroshi

### **Advanced Courses**

Dean of Advanced Courses (Aide to the President) OKANE Masaki Assistant Dean, Advanced Courses (Hongo Campus) OKANE Masaki Assistant Dean, Advanced Courses (Imizu Campus) ASO Tsukasa

### **Department of General Education**

Department chair, General Education	OKABE Hiroko
Chief, General Education (Hongo Campus)	TOMITA Takashi
Chief, General Education (Imizu Campus)	OKABE Hiroko

### Office of Product Development and Community Outreach

General Manager, Headquarters for Product ISHIHARA Sotomi Development and Community Outreach ISHIHARA Sotomi Director, Solution Center for Product Development NISHIDA Hitoshi Director, Innovation Center for Cooperative Research TAKADA Eiji Director, Center for International Education NARUSE Yoshinori and Research

### Public Relations and Student Recruitment Office

General Manager, Public Relations and Student Recruitment Office	ISHIHARA Sotomi
Manager, Public Relations Office	SATO Keisuke
Manager, Student Recruitment Office	HASEGAWA Hiroshi

### As of May 1, 2015

### Library and Information Center

General Manager, Library and Information Center KAWAFUCHI Hiroyuki Chief, Library and Information Center (Hongo Campus) KAWAFUCHI Hiroyuki Chief, Library and Information Center (Imizu Campus) SHIMIZU Yoshihiko

### Secretariate Division

General Secretary	HAYASHI Koichi
Manager, General Affairs Division	KOBAYASHI Masayuki
Manager, Financial Affairs Division	NISHINO Shinichi
Manager, Student Affairs Division (Hongo Car	mpus) ISHIDA Yoshikuni
Manager, Student Affairs Division (Imizu Cam	pus) YAMADA Yutaka

### **Technical Office**

Manager, Technical Office

NISHIDA Hitoshi

### Faculty Members

As of May 1	, 2015
Faculty Members	
President	1
Professors	51
Associate Professors	53
Lecturer	1
Assistant Professors	23
Research Associate	1
Special Project Fellows	6
Sub-total	136
Staff Members	
Secretarial Staff	59
Technical Staff	24
Sub-total	83
Total	219
Breakdown by Department	
Department of Mechanical Engineering	14
Department of Electrical and Control Systems Engineering	16
Department of Applied Chemistry and Chemical Engineering	16
Department of Electronics and Computer Engineering	15
Department of International Business	13
Department of Maritime Technology	16
Department of General Education (Hongo Campus)	15
Department of General Education (Imizu Campus)	15
Faculty Members at Center	5
Training Ship WAKASHIO-MARU	4
Special Project Fellows	6
Total	135

## 3. Departments

### Department of Mechanical Engineering

- Department of
- Mechanical Engineering
- Educational objectives

To develop engineers who comprehensively acquire knowledge, focusing on mechanical engineering as the basis of manufacturing and production technology and play a role in equipment design, technology development and other engineering-related fields.

To develop engineers who acquire knowledge focusing on machinery and systems, mechanical materials, design and production, dynamics, energy measurement and control, and apply them to problem solving.

To develop engineers with a great amount of creative energy and an inquiring mind who acquire the ability for mechanical engineering thought and can develop and apply new technologies and new materials from a comprehensive perspective to basic system construction.





Cur	rıculum
Classifi- cation	Subjects
	Fundamental Experiments for Manufacturing Engineers
Reguired Subjects	Introduction to Ethics for Engineers
	Fundamentals of Information Technology Engineering Mechanics I
	Manufacturing Practice I
	Fundamental Experiments for Engineers 1
	Fundamentals of Materials Science and Engineering I
	Strength of Materials I Thermodynamics I
g	Manufacturing Practice II
ubjects	Fundamental Experiments for Engineers I
	Fluids Engineering I
	Introduction to Graduation Research Experiments in Mechanical Systems
	Experiments in Mechanical Systems I
	Safety Engineering
	Experiments in Mechanical Engineering II Graduation Research
	Engineering Mechanics II
	Practice of Engineering Mechanics
	Fundamentals of Mechanical Drawing
	Practical Manufacturing and Engineering Information Processing I
	Energy Conversion Mechanics
	Applied Physics I
	Fundamentals of Materials Science and Engineering I
	Strength of Materials I Manufacturing Processes I
	Mechanics
	Mechanical Design and Drawing
	Information Processing I
	Thermodynamics I Applied Mathematics I
	Applied Mathematics II
	Electric and Electronic Circuit
	Mechanical Engineering Measurement Strength of Materials III
	System Design
	Practical English for Mechanical Engineering I
	Manufacturing Processes I Ferrous Metallurgy
	Analytical Engineering of Materials
Elec	Fluids Engineering I
	Nonferrous Metals Mechanical Vibrations
e S	Introduction to Programming
jdu	Applied Mathematics II
ive Subjects	Applied Physics I
03	Metallurgical Engineering Heat Transfer Engineering
	Thermodynamics of Materials
	Mechanical Elements and Designing
	Internship Control Engineering L
	Control Engineering I Materials Properties I
	Practical English for Mechanical Engineering I
	Environmental Strength I
	Simulation Engineering Production and Quality Management
	Applied Mathematics IV
	Vibrational Engineering
	Materials Properties II
	Environmental Strength II Organic Materials
	Fluid Machine Technology
	Heat Engine Technology
	Control Engineering II Fundamentals of Static and Fatigue Design
	Manufacturing Processes II
	Applied Programming
	Deformation and Fracture of Materials
	Advanced Lecture of Mechanical Engineering Presentation in English

### Department of Electrical and Control Systems Engineering

## Department of Electrical and Control Systems Engineering

Educational objectives

To develop engineers who comprehensively acquire electrical, mechanical and information technology engineering and can creatively develop new technologies.

To develop engineers who integrate specialized knowledge focusing on electricity and machinery that are the pillars of engineering.

To develop engineers who acquire the ability to think based on electrical and mechanical engineering and can carry out "manufacturing" based on mathematics, physics and chemistry.







Classifi-	Subjects
cation	Fundamental Experiments for Manufacturing Engineers
	Introduction to Ethics for Engineers
Re	Fundamentals of Information Technology
	Introduction to Electrical Engineering
Reguired Subjects	Fundamental Information Technology Technical Design and Drawing I
ed (	Manufacturing Engineering
duß	Fundamental Experiment for Engineering
ject	Experiments on System Engineering I
6	Experiments on System Engineering I
	Introduction to Graduation Research Experiments on System Engineering II
	Graduation Research
	Applied Physics I
	Electromagnetism I
	Electric Circuit I Electronic Circuit I
	Computer Science
	Technical Design and Drawing I
	Industrial mechanics
	Fundamentals of Mechatronics
	Instrumentation Engineering I Applied Mathematics I
	Applied Mathematics I
	Applied Mathematics II
	Applied Physics II
	Applied Physics II
	Technical English I Electromagnetism II
	Electromagnetism II
	Electric Circuit II
	Electric Circuit II
	Electric Machine I
	Electronic Circuit II Electronic Circuit II
	Computer Systems I
	Computer Systems II
Elec	Control Engineering I
Elective	Control Engineering I
SC	Fluid Dynamics I Thermodynamics I
ubjects	Manufacturing Processes
cts	Strength of Materials I
	Strength of Materials I
	Mechatronics Creative Design Internship
	Applied Mathematics IV
	Technical English I
	Electrical Engineering Materials
	Electric Machine II
	Power Electronics Electronics I
	Electronics I
	Communication Engineering
	Instrumentation Engineering I
	Control Engineering II
	Simulation Engineering System Engineering
	Robotics I
	Robotics II
	Dynamics of Machinery I
	Dynamics of Machinery I
	Fluid Dynamics II
	Thermodynamics II Computer Aided Design and Manufacturing
	Material Engineering
	Presentation in English

Department of Applied Chemistry and Chemical Engineering

Department of Applied Chemistry and Chemical Engineering

Educational objectives

To develop engineers who have knowledge focusing on a wide range of fields such as nanomaterials, functional materials, polymeric materials and eco-technology and having a deep knowledge of the most advanced technology based on chemistry and biochemistry.

To develop engineers who have the ability to plan and carry out the development and improvement of environment-friendly, organic / inorganic materials and energy-related materials and environmental protection technologies and the high ethical standards for engineers.

To develop engineers who can contribute to the development of chemical / pharmaceutical industries and the polymeric industry that are significant locally, protect and improve the building of a sustainable society and the Sea of Japan Rim Region environment.





Classifi-	
cation	Subjects
Reguired Subjects	Fundamental Experiments for Manufacturing Engineers
	Introduction to Ethics for Engineers Fundamentals of Information Technology
	Experiments in Analytical Chemistry
	Experiments in Organic Chemistry
	Experiments in Inorganic Chemistry
	Experiments in Physical Chemistry
	Presentation-oriented Experiments
	Experiments in Chemical Engineering Experiments in Biochemistry
	Introduction to Graduation Research
	Graduation Research
	Organic Chemistry I
	Organic Chemistry I
	Inorganic Chemistry I
	Analytical Chemistry I Biology
	Computer Programming I
	Organic Chemistry II
	Analytical Chemistry II
	Basic Chemical Engineering
	Outline of Biochemistry Inorganic Chemistry II
	Inorganic Chemistry II
	Physical Chemistry I
	Computer Programming I
	Applied Mathematics I
	Applied Mathematics I
	Applied Physics I Applied Physics I
	Organic Chemistry IV
	Organic Chemistry V
	Inorganic Chemistry IV
	Chemical Engineering I
	Chemical Engineering I Biochemistry I
	Biochemistry I
Пe	Physical Chemistry II
ctiv	Physical Chemistry II
Elective Sub	Materials Engineering I Instrumental Analysis I
	Experiments in Instrumental Analysis
ects	English for Chemistry
•	Polymer Chemistry I
	Molecular Biology
	Genetic Engineering Internship
	Chemical Reaction Engineering
	Advanced Chemistry I
	Advanced Chemistry I
	Materials Engineering I Applied Physics II
	Applied Physics II
	Industrial Organic Chemistry
	Industrial Inorganic Chemistry
	Polymer Chemistry I
	Chemical Engineering II Applied Microbiology
	Pharmacology
	Advanced Instrumental Analysis
	Eco-materials
	Instrumental Analysis I
	Computer-Aided Design Quality Control
	Safety Engineering
	Environmental Science
	Biocatalytic Engineering
	Presentation in English

## Department of Electronics and Computer Engineering

Department of Electronics and Computer Engineering

- Educational objectives
- . . . . .

To develop engineers who can design and develop a comprehensive program from systems to application.

To develop engineers who can design electronic circuits from sensors to interface.

To develop engineers who can design a network to organically connect programs and circuits.







Classifi- cation Subjects Fundamental Experiments for Manufacturing Introduction to Ethics for Engineers Fundamentals of Information Technology Fundamentals of Electricity I Fundamentals of Electricity I Computer Systems Logic Circuits Programming I Programming I Seminars in Engineering I	Engineers
Introduction to Ethics for Engineers Fundamentals of Information Technology	Engineers
Fundamentals of Information Technology	
Eundamentals of Electricity, I	,
Fundamentals of Electricity I Computer Systems	/
Computer Systems	
Logic Circuits	
O         Programming I           O         Programming I	
Seminars in Engineering I	
Experiments on Electronic and Computer Engl	
Experiments on Electronic and Computer Engi	
Experiments on Electronic and Computer Engi Graduation Research	neering m
Applied Physics I	
Applied Physics II	
Electric Circuits I Electronic Circuits I	
Electronic Circuits I	
Programming II	
Computer Structure I	
Computer Structure I Algorithm and Data Structure I	
Algorithm and Data Structure I	
Discrete Mathematics I	
Seminars in Engineering I	
Applied Mathematics I Applied Mathematics I	
Applied Mathematics II	
Applied Physics IV	
Electromagnetism I	
Electromagnetism II Electric Circuits III	
Electronic Device	
Electronic Systems I	
Electronic Systems II	
Electrical Communication Engineering I Electrical Communication Engineering II	
Communication Systems I	
Communication Systems I     Operating System I     Operating System I	
Operating System I	
Ø         Operating System II           Ø         Control Engineering I	
$\overline{\Phi}$ Control Engineering I	
Numerical Computation	
Discrete Mathematics II	
Creative Engineering Design I Creative Engineering Design II	
Internship	
Applied Mathematics II	
Applied Mathematics IV Technical English	
Sensor Engineering	
Digital Signal Processing I	
Digital Signal Processing I	
Electronic Circuits II Electronic Circuits IV	
Computer Instrumentation I	
Computer Instrumentation I	
Electromagnetic Wave Engineering	
Applied Electromagnetic Systems	
Computer Networks I Computer Networks II	
Software Engineering I	
Software Engineering I	
Media Engineering I	
Media Engineering I	
Computer Engineering I Computer Engineering II	
Information Theory	
Information meory	

## Department of International Business

Department of International Business Educational objectives
To develop human resources who acquire specialized knowledge focusing on business and can utilize such knowledge. To develop business persons who have
language skills in English and other foreign languages (Chinese, Korean or Russian) and the ability to understand cross-culturally.
日本文法文化学院
SEF7

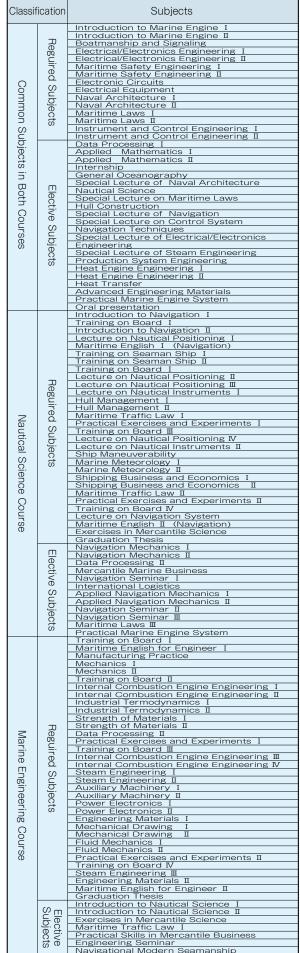
Classifi-	riculum
cation	Subjects
	Introduction to Commerce I Introduction to Commerce II
	Information Literacy I
	Information Literacy II
	Computer Literacy I Introduction to Logistics I
Reguired Subjects	Introduction to Logistics I
	Introduction to Accounting I Introduction to Accounting II
	Introduction to Economics I
	Introduction to Economics II
	English Workshop I English Workshop II
	Introduction to Law I
	Introduction to Law II Introduction to Management I
	Introduction to Management I
	Socio-Economic History of Japan Sea Rim I Socio-Economic History of Japan Sea Rim II
	Socio-Economic History of Japan Sea Rim II Business Seminar I
	Business Seminar II
	Graduation Thesis Information Literacy III
	Information Literacy IV
	Computer Literacy II
	Logistics Management I Logistics Management II
	Financial Accounting I
	Financial Accounting II Manufacturing Accounting I
	Manufacturing Accounting I
	Chinese Workshop I Korean Workshop I
	Russian Workshop I
	Chinese Workshop II
	Korean Workshop II Russian Workshop II
	Marketing I
	Marketing II International Logistics I
	International Logistics I
	Manegerial Accounting I
	Manegerial Accounting II Civil Law I
	Strategic Management I Strategic Management I
	Management Information I
	Management Information I Socio-Economic History of the Japan Sea Rim II
	Socio-Economic History of the Japan Sea Rim ${ m I\!V}$
	Business English Current English Reading
_	Chinese Workshop II
Elect	Korean Workshop II
<u> </u>	Russian Workshop II Chinese Expression I
è	Korean Expression I
duố	Russian Expression I Chinese Expression II
ve Subjects	Korean Expression II
ts	Russian Expression II Chinese Expression III
	Korean Expression II
	Russian Expression III
	Finance and Insurance Theory I Finance and Insurance Theory II
	Internship
	International Business I International Business II
	Marketing Strategy
	Target Costing I Target Costing II
	Business English Workshop I
	Business English Workshop II
	An Introductory Course in Cross-cultural Studies Business Chinese
	Business Korean
	Business Russian Current Chinese
	Current Korean
	Current Russian Employment Law I
	Employment Law I Employment Law I
	Management & Administration I
	Management & Administration II Management Science I
	Management Science I
	An Introductory Course in International Relations I An Introductory Course in International Relations II
	Overseas Program in English Speaking Countries
	Overseas Program in the Japan Sea Rim English Presentation

## Department of Maritime Technology

Department of Maritime Technology Educational objectives
To have students acquire specialized knowledge necessary as a vessel specialist.
To develop professional abilities through experiments and practical training for control and construction of systems in the maritime field. To have students acquire a code of etiquette and seamanship necessary for good operation of vessel systems through practical training and discipline.
To develop knowledge, skills and the basis of management skills for development of professional applied skills.







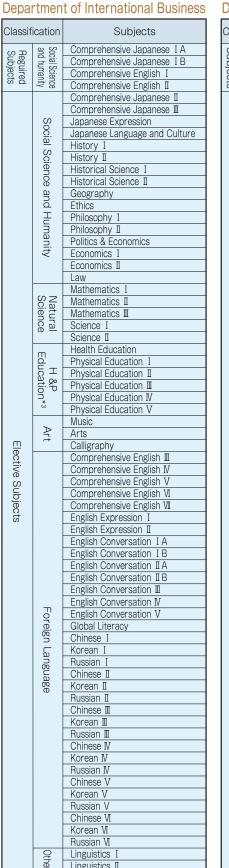
## Department of General Education

Curriculum

## Curriculum

### 4 Departments of Engineering

Classification		Subjects
		Fundamental Mathematics A I
လူနာ	ΩZ	Fundamental Mathematics A I
Reguired Subjects	Science Social Science and Humanity	Fundamental Mathematics B
iire ect		Physics I
ts g		Chemistry I
		Fundamental Science Experiment
		Comprehensive Japanese I A
		Comprehensive Japanese I B Comprehensive Japanese II
		Comprehensive Japanese II
		Japanese Expression
		Japanese Language and Culture
		History I
	) no	History I
	ŏ	Historical Science I
	an	Historical Science II
		Ethics
	L L	Philosophy I
	na	Philosophy II
	<u> </u>	Politics & Economics
	~	Economics I
		Economics II
		Law
		Fundamental Mathematics C
		Calculus I
		Calculus II Linear Algebra
	-	Mathematical Analysis I
	lat	Mathematical Analysis I
	5	Comprehensive Mathematics
	<u><u></u></u>	Probability and Statistics
		Advanced Mathematics I
	en	Advanced Mathematics II
	Natural Science	Physics I *1
		Physics II
		Physics II
Ē		Chemistry I *2
Elective Subjects		Chemistry II
Ve	H &P Education*3	Health Education
လ		Physical Education I
J <u>d</u>		Physical Education II
ec		Physical Education II
S		Physical Education IV Physical Education V
		Music
	Art	Arts
		Calligraphy
		Comprehensive English I
		Comprehensive English II
		Comprehensive English II
		Comprehensive English IV
		Comprehensive English V
		English Expression I
		English Expression II
		English Expression II
	Foreign Language	English Conversation I
	ei.	English Conversation II English Conversation Practicum I
	gn	English Conversation Practicum I English Conversation Practicum I
	6	English Practicum I
	BUE	English Practicum I
	Suc	English Practicum II
	98E	Chinese I
		Korean I
		Russian I
		Chinese II
		Korean I
		Russian II
		Chinese II
		Korean II
		Russian II
	Othe	Cross-cultural Training For The English-Speaking World
	he	Cross-cultural Training For Japan Sea Rim



### Curriculum Department of Maritime Technology

Jepa	epartment of Maritime rechnology			
Classification		Subjects		
		Fundamental Mathematics A I		
Reguired Subjects	Natural Science	Fundamental Mathematics A I		
		Fundamental Mathematics B		
		Physics I		
		Comprehensive Japanese I A		
		Comprehensive Japanese I B		
		Comprehensive Japanese II		
	So	Comprehensive Japanese II		
	<u>C</u> .	Japanese Expression		
	Social Science and Humanity	History I		
	icie	History I		
	enc	Historical Science I		
	ĕ	Historical Science I		
	an	Geography		
	d H	Ethics		
	L L	Philosophy I		
	ma	Philosophy I		
	ni:	Politics & Economics		
	ţ	Economics I		
		Economics I		
		Law		
		Calculus I		
		Calculus I		
		Linear Algebra		
	7	Mathematical Analysis I		
	Natural Science	Mathematical Analysis I		
	un	Probability and Statistics		
	<u>a</u>	Comprehensive Mathematics		
	Sci.	Advanced Mathematics I		
	en	Advanced Mathematics I		
	Ce	Physics II		
		Physics II		
		Chemistry I		
Ш		Chemistry II		
Elective Subjects	-	Health Education		
tive	d	Physical Education I		
ŝ	ло Н	Physical Education II		
<u> </u>	atic P	Physical Education II		
je	'n,	Physical Education IV		
sts	H &P Education* <sup>3</sup>	Physical Education V		
		Music		
	Art	Arts		
		Calligraphy		
		Comprehensive English I		
		Comprehensive English II		
		Comprehensive English II		
		Comprehensive English IV		
		Comprehensive English V		
		English Expression I		
		English Expression II		
		English Expression II		
	Ţ	English Conversation I		
	ore	English Conversation II		
	9ig	English Conversation Practicum I		
		English Conversation Practicum II		
	Foreign Language	English Practicum I		
	nBl	English Practicum II		
	lag	English Practicum II		
	õ	Chinese I		
		Korean I		
		Russian I		
		Chinese II		
		Korean II		
		Russian II		
		Chinese II		
		Korean II		
		Russian II		
	Other	Cross-cultural Training For The English-Speaking World		
	ler	Cross-cultural Training For Japan Sea Rim		

(\*1) "Physics I" (2 credits) is a mandatory course and "Chemistry I" (2 credits) is an elective course in the Department of Mechanical Engineering, Department of Electrical and Control Systems Engineering and Department of Electronics and Computer Engineering, "Chemistry I" (3 credits) is a mandatory course and "Physics I" (2 credits) is an elective course in the Department of Applied Chemistry and Chemical Engineering, (\*2) "Basic Science Experiments" (1 credit) is a mandatory course in the Department of Mechanical Engineering, Department of Systems

Linguistics I

Engineering and Department of Electronics and Computer Engineering. "Basic Chemical Experiments" is not offered in the Department of Applied Chemistry and Chemical Engineering

(\*3) Health and Physical Education

## 4. Advanced Courses

The Advanced Courses consists of engineering courses of the "ECOdesign Engineering Program" and the "Control Information Systems Engineering Program", a humanities course of the "International Business Program," and a maritime course of the "Maritime System Engineering Program", which develops human resources who develop a broad education and advanced specialized knowledge.

### ECOdesign Engineering Course

The ECOdesign Engineering Program conducts advanced and complex education focusing on basic academic skills related to mechanical systems engineering, electrical and control systems engineering and applied chemistry and chemical engineering and other engineeringrelated fields obtained in the education of higher professional school based on the foundation that all technologies should be environment-friendly and provides common courses such as environmental engineering, environmental sociology, engineering ethics and measurement / control for students to develop into creative engineers having a spirit of coexistence.

## Curriculum

Classifi- cation	Subjects
0	Instrumentation and Control
Core Advanced Course Subjects	Computer Programming
	Biotechnology
	Fundamentals of Mechanics
	Engineering Ethics
	ECOtechnology
ō	Environmental Engineering
ou	Industrial Mathematics
Se	Fundamentals of Management of Technology
လူ	Internship A (Domestic Internship Program)
Jabi	Internship B (Overseas Internship Program)
ect	Special Topics of ECO Design Engineering
S	Special Practice (Creative Engineering Project)
	Special Research of ECO Design Engineering I
	Special Research of ECO Design Engineering II
	Advanced Course of Materials Engineering
	Advanced Lecture of Vibration Engineering
	Advanced Simulation Engineering
	Advanced Fluid Mechanics
	Functional Materials
	Precision Machining and Manufacturing
	Advanced Lecture of Thermal Engineering
ŝ	Advanced System Designing
Special Advanced Course Subjects	Manufacturing Process
iai	Numerical Analysis
Ad	Special Lectures on Electric Circuit
var	Robot Engineering
nce	Advanced Lecture on Intellectual Signal Processing
, p	Energy Theory
$\circ$	Electromagnetics Engineering
Jrs	Special Lectures on Power Electronics
õ	ECO Electric Power System
Sub	Electronic Properties of Solids
ojec	Thin-Film Engineering
ots	Advaced Lecture on Physical Chemistry
	Special Lecture on Inorganic Materials
	Composite Materials Engineering
	Advanced Polymer Materials
	Special Lecture on Functional Materials Engineering
	Advanced Lecture on Eco-materials
	Fine Organic Synthesis
	Workings of Life Substance
	Food Chemical Engineering
	Special Lecture on Instrumental Analysis

### Control Information Systems Engineering Course

Control Information Systems Engineering Program develops professional engineers who acquire technologies for software, electricity / electronics and networks and who can design a system in which they are cooperatively coupled.

## International Business Course

The International Business Program develops coordinators and project managers who have advanced technical knowledge related to business administration and practical abilities for business and who are engaged in the Sea of Japan Rim Region business.

## Curriculum

Classifi- cation	Subjects
	Engineering Ethics/Business Ethics
	Technical English
	Advanced Applied Mathematics
	Advanced Applied Physics
	Seminar on Mathematics and Physics Application
Cor	International Relations
е́Р	Advanced Business Strategy
dva	Operations Research
nce	Information Processing
d C	Parameter Design
Core Advanced Course Subjects	Manufacturing System
se S	Internship A
ubj	Internship B
ects	Seminar on Industrial Technology
-	Trade Procedure in Port
	Port Logistics
	Introduction to Geoscience
	Shock Compression and Blast Wave
	Environmental Snow Engineering
	Thesis Research I
	Thesis Research II
d Q	Advanced Experiments
ecia	Advanced Seminars and Exercises
II Ac	Object-oriented Programming
dvar	Instrument and Control Programming
lcec	Quantum Electronics
C C	Advanced Communication Engineering
Special Advanced Course Subjects	Physical Properties of Electronic Material
e Sl	Advanced Electromagnetic Waves
Jbje	Biological Information Engineering
cts	Advanced Computational Engineering
	Network System
	Intelligent Information Processing

Classifi- cation	Subjects
	Engineering Ethics/Business Ethics
	Technical English
	Advanced Applied Mathematics
	Advanced Applied Physics
0	Seminar on Mathematics and Physics Application
ore	International Relations
Core Advanced Course Subject	Advanced Business Strategy
van	Operations Research
ICec	Information Processing
00	Seminar on Industrial Technology
our	Internship A
se	Internship B
duS	Parameter Design
jec.	Manufacturing System
ťs	Trade Procedure in Port
	Port Logistics
	Introduction to Geoscience
	Shock Compression and Blast Wave
	Environmental Snow Engineering
	Thesis Research I
	Thesis Research II
	Advanced Business Management I
S	Advanced Business Management II
pec	Academic English Reading
ial .	Advanced Business Administration
Adv	Business in Japanese Sea Rim
/and	Seminar on Business in Japanese Sea Rim
ced	Advanced International Business
8	Mathematical Decision Making
urs	Business Accounting
а С	Applied Information Processing
du	Environmental Marketing
Special Advanced Course Subjects	Distribution System
S.	Advanced Marketing
	Business and Commerce
	Data analysis of Management Systems
	Management Systems Science

## Maritime System Engineering Course

The Maritime System Engineering Program develops human resources who can play a role for system creation to connect lands and ships for new logistics, new transportation systems and new plants, based on in-depth and systematic learning.

## Curriculum

Classifi- cation	Subjects
	Engineering Ethics/Business Ethics
	Technical English
	Advanced Applied Mathematics
	Advanced Applied Physics
	Seminar on Mathematics and Physics Application
Cor	International Relations
Core Advanced Course Subjects	Advanced Business Strategy
dvai	Operations Research
nce	Information Processing
d Q	Parameter Design
ours	Manufacturing System
se S	Internship A
ubj	Internship B
ects	Seminar on Industrial Technology
••	Trade Procedures in Port
	Port Logistics
	Introduction to Geoscience
	Shock Compression and Blast Wave
	Environmental Snow Engineering
	Thesis Research I
	Thesis Research II
Spe	Advanced Experiments
ecia	Advanced Seminars and Exercises
Ad	Ship Control System
lvan	Navigation System
ced	Vehicle Design
0	Marine Environmental and Information Technology
urs	Advanced Heat Engine Engineering
Special Advanced Course Subjects	Steam and Gas Turbines for Marine Propulsion
Jbje	Advanced Fluid Engineering
cts	Marine Labor Low
	Advanced Heat Transfer
	Advanced Electronic Engineering

## General Education

### ECOdesign Engineering Course

Classifi- cation	Subjects
General Education	Japanese Language and Culture
	History and Culture
	Thought and Culture
	Enviromental Sociology
Foreign laungage	English I
	English I
	English Communication I
	English Communication II

### Control Information Systems Engineering Course

Subjects
Advanced English Practicum I
Advanced English Practicum II
Advanced English Workshop
Japanese Language and Literature
Regional Studies
Health Science
Industrial Society
Culture Studies of Japan Sea Rim Countries

### International Business Course

Subjects
Advanced English Practicum I
Advanced English Practicum II
Advanced English Workshop
Japanese Language and Literature
Regional Studies
Health Science
Industrial Society
Culture Studies of Japan Sea Rim Countries

### Maritime System Engineering Course

Subjects
Advanced English Practicum I
Advanced English Practicum II
Advanced English Workshop
Japanese Language and Literature
Regional Studies
Health Science
Industrial Society
Culture Studies of Japan Sea Rim Countries

## Department of Mechanical Engineering

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	INOUE Makoto	Nonferrous Metals
Professor	Ph.D.	OKANE Masaki	Strength of Materials
Professor	Ph.D.	SASE Naoki	Mechanical Elements and Designing
Professor	Ph.D.	TAKAHASHI Katsuhiko	Metallurgical Engineering
Professor	Ph.D.	TERANISHI Tsunenobu	Heat Transfer Engineering
Associate Professor	Ph.D.	ASAJI Toyohisa	Practice of Engineering Mechanics
Associate Professor	Ph.D.	IZAWA Masaki	System Design
Associate Professor	Ph.D.	KITA Masao	Fundamentals of Materials Science and Engineering
Associate Professor	M.S.	MASUYAMA Keiichi	Fundamentals of Mechanical Drawing
Associate Professor	Ph.D.	SAKAMOTO Yoshinori	Environmental Strength I
Associate Professor	Ph.D.	SHIRAKAWA Hidemi	Fluids Engineering
Associate Professor	Ph.D.	TOSHIMA Takeshi	Materials Properties II
Associate Professor	Ph.D.	YOSHIKAWA Fumie	Mechanical Engineering Measurement
Assistant Professor	Ph.D.	TAJIRI Tomoki	Control Engineering

## Department of Electrical and Control Systems Engineering

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	NISHI Toshiyuki	Electromagnetism I
Professor	Ph.D.	NISHIDA Hitoshi	Fluid Dynamics I
Professor	Ph.D.	SAKURAI Yutaka	Electrical Engineering Materials
Professor	Ph.D.	SATO Keisuke	Electric Machine I, II
Professor	Ph.D.	SHIBATA Hiroshi	Strength of Materials I, I
Professor	Ph.D.	TAKADA Eiji	Instrumentation Engineering
Associate Professor	Ph.D.	FUJISAKI Akihiro	Applied Physics I, II
Associate Professor	M.S.	FURUKAWA Hiroto	Electric Circuit I · II
Associate Professor	Ph.D.	IKEDA Shinji	Electronics
Associate Professor	Ph.D.	IKEDA Hidetoshi	Robotics II
Associate Professor	Ph.D.	ISHIDA Fumihiko	Fundamental Information Technology
Associate Professor	Ph.D.	KANEKO Shin-ichiro	Robotics I
Associate Professor	Ph.D.	MOMOSE Noboru	Fundamentals of Mechatronics
Associate Professor	Ph.D.	TADA Kazuhiro	Electronic Circuit I
Assistant Professor	Ph.D.	KITAMURA Takuya	Control Engineering I
Assistant Professor	Ph.D.	WATANABE Hidenori	Introduction to Electrical Engineering

## Department of Applied Chemistry and Chemical Engineering

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	GOTO Michimasa	Biochemistry I
Professor	Ph.D.	KAWAFUCHI Hiroyuki	Organic Chemistry IV
Professor	Ph.D.	KAWAI Takae	Physical Chemistry I
Professor	Ph.D.	TAFU Masamoto	Eco-materials
Professor	Ph.D.	TAKAHIRO Masahiko	Applied Physics I
Professor	Ph.D.	YASUDA Kensei	Inorganic chemistry
Associate Professor	Ph.D.	MANAKA Atsushi	Experiments in Analytical Chemistry
Associate Professor	Ph.D.	MINEMOTO Yasumasa	Applied Mathematics I
Associate Professor	M.S.	MORITA Yasufumi	Genetic Engineering
Associate Professor	Ph.D.	NAKAJIMA Eiji	Basic Chemical Engineering
Associate Professor	Ph.D.	SHINOZAKI Yukiko	Molecular Biology
Assistant Professor	Ph.D.	FUKUDA Tomohiro	Organic Chemistry I
Assistant Professor	Ph.D.	MORI Yasutaka	Polymer Chemistry
Assistant Professor	Ph.D.	SAKONO Naomi	Physical Chemistry I
Assistant Professor	Ph.D.	TAKAMATSU Saori	Analytical Chemistry II
Assistant Professor	Ph.D.	YAMAGISHI Masakazu	Organic Chemistry I

## Department of Electronics and Computer Engineering

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	ASO Tsukasa	Communication Systems
Professor	Ph.D.	MIZUMOTO Iwao	Electrical Communication
Professor	Ph.D.	SHINA Toru	Electromagnetism
Professor	Ph.D.	SHINKAI Junko	Discrete Mathematics
Professor	Ph.D.	SHINOKAWA Toshiyuki	Computer Structure
Professor	Ph.D.	TSUKADA Akira	Electric Circuits
Associate Professor	Ph.D.	AKIGUCHI Syunsuke	Operating System
Associate Professor	Ph.D.	FURUYAMA Shoichi	Computer Engineering
Associate Professor	M.S.	HAYASE Yoshikazu	Discrete Mathematics
Associate Professor	Ph.D.	MATOBA Ryuichi	Applied Mathematics
Associate Professor	Ph.D.	OGUMA Hiroshi	Digital Signal Processing
Associate Professor	M.S.	YAMAGUCHI Akifumi	Electric Circuits
Associate Professor	Ph.D.	YOSHII Yotsumi	Applied Physics
Assistant Professor	Ph.D.	ITO Nao	Electric Circuits
Research Associate	M.S.	KADOMURA Hideki	Experiments on Computer Engineering

## Department of International Business

Status	Academic Credentials	Name	Subject
Professor	M.A.	HASEGAWA Hiroshi	Financial Accounting
Professor	Ph.D.	NARUSE Yoshinori	Management Science
Professor	Ph.D.	NISHIHARA Masahiro	An Introductory Course in Cross-cultural Studies
Professor	Ph.D.	SHIMIZU Makoto	Marketing Strategy
Associate Professor	M.A.	EBIHARA Tsuyoshi	Business Chinese
Associate Professor	M.A.	OGATA Kaoru	Business Korean
Associate Professor	M.A.	OKAMOTO Katsunori	Socio-economic History of the Japan Sea Rim
Associate Professor	M.A.	MATSUBARA Yoshihiro	Employment Law
Associate Professor	Ph.D.	MIYASHIGE Tetsuya	Strategic Management
Associate Professor	Ph.D.	MIYAZAKI Izumi	Business Russian
Associate Professor	Ph.D.	MURAYAMA Masako	Logistics Management
Assistant Professor	Ph.D.	HATAKEYAMA Toshihiro	International Business
Assistant Professor	Ph.D.	SHIOMI Kosuke	Management Accounting
Professor(Temporary)	M.A.	TACHI Kiyoshi	Shipping

## Department of Maritime Technology

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	CHIBA Hajime	Marine Meteorology
Professor	Ph.D.	ENDO Makoto	Naval Architecture
Professor	Ph.D.	HACHIGA Tadashi	Electrical/Electronics Engineering
Professor	Ph.D.	HOMAE Tomotaka	Mechanics
Professor	Ph.D.	MIKAMI Hiroshi	Steam Engineering
Professor	Ph.D.	MIZUTANI Junnosuke	Engineering Materials
Professor	Ph.D.	NAKATANI Toshihiko	Introduction to Navigation
Professor	Ph.D.	TOGA Shinji	Applied Navigation Mechanics
Professor	Ph.D.	YAMAMOTO Keiichiro	Power Electronics
Associate Professor	M.S.	KAWAI Msashi	Positioning System
Associate Professor	M.A.	SASAYA Keiji	Maritime Safety Engineering
Lecturer	Ph.D.	MAIWA Kazuyuki	Fluid Mechanics
Assistant Professor	Ph.D.	KYODEN Tomoaki	Industrial Termodynamics
Assistant Professor	M.S.	NISHII Noriko	Maritime Traffic Law
Assistant Professor	A.S.	SASAJIMA Shiro	Practical Marine Engine System
Assistant Professor	M.S.	YAMADA Keisuke	Internal Combustion Engine Engineering

### School Training Ship WAKASHIO-MARU

Status	Academic Credentials	Name	Subject
Captain	A.S.	NAKAGAWA Hiroshi	Training on Board
Chief Engineer	A.S.	SASAKI Tadashi	Training on Board
Chief Officer	M.A.	HASHIMOTO Shintaro	Training on Board
First Engineer	A.S.	YAMATANI Naohiro	Training on Board

## Department of General Education

### (Hongo campus)

Status	Academic Credentials	Name	Subject
Professor	M.A.	AOYAMA Akiko	English Expression I
Professor	M.A.	HASEGAWA Takayuki	Advanced Mathematics
Professor	M.A.	HIBI Naohiro	Physical Education
Professor	B.A.	TAKAKUMA Tetsuya	Comprehensive Japanese
Professor	M.A.	TOMITA Takashi	Comprehensive English II
Professor	Ph.D.	TSUMORI Nobuko	Chemistry
Professor	M.A.	MIYAZAKI Shinya	Philosophy I
Professor	Ph.D.	YAMAKOSHI Hitoshi	Physics
Associate Professor	Ph.D.	ADACHI Mayuko	Comprehensive Japanese
Associate Professor	Ph.D.	HASHIMOTO Itsuko	Calculus
Associate Professor	M.S.	KAWAHARA Osamu	Mathematical Analysis
Associate Professor	M.A.	TAKAGOSHI Yoshikazu	Comprehensive English II
Assistant Professor	M.A.	NIKI Yasuhiro	Physical Education
Assistant Professor	Ph.D.	OGAWA Noriko	English Practice II
Assistant Professor	Ph.D.	YOKOYAMA Kyoko	History
Professor(Temporary)	M.A.	TATENO Akira	English Expression II

### (Imizu campus)

Status	Academic Credentials	Name	Subject
Professor	Ph.D.	HOSHINO Akemi	Chinese Language
Professor	M.A.	KANAGAWA kinji	Linguistics
Professor	M.A.	KANEKO Ryuichi	Physical Education
Professor	M.S.	KAWAI Hitoshi	Mathematical Analysis
Professor	M.A.	OKABE Hiroko	Comprehensive Japanese
Professor	M.A.	SHIMIZU Yoshihiko	English Practice I
Associate Professor	M.A.	CHARLTON Bill Moananu	English for International Communication
Associate Professor	M.A.	COOPER Todd	English for Business and Commerce
Associate Professor	M.A.	KONDO Shugo	Comprehensive Japanese
Associate Professor	Ph.D.	OHTAKE Yukiko	Physics
Associate Professor	M.A.	OHASHI Chisato	Physical Education
Associate Professor	Ph.D.	SAKURAI Hideto	Mathematics
Associate Professor	Ph.D.	TERASAKI Yukiko	Chemistry
Associate Professor	M.A.	YAMAMOTO Yuki	Russian Language
Associate Professor	M.A.	YOKOTA Kazuhiro	Regional Studies
Assistant Professor	M.A.	YAMAMURA Hiroto	Comprehensive English

## Center

### Solution Center for Product Development

Status	Academic Credentials	Name	Subject
Professor	B.S.	URAKAZE Kazuhiro	Dynamics of Machinery II
Associate Professor	Ph.D.	HAGIWARA Shingo	Mathmatical Decision Making
Assistant Professor	Ph.D.	ISHIGURO Minoru	Simulation Engineering
Assistant Professor	Ph.D.	YAMAMOTO Hisashi	Fluid Dynamics

### Innovation Center for Cooperative Research

Status	Academic Credentials	Name	Subject
Associate Professor	Ph.D.	OTA Takao	Engineering Mechanics

## 6. Office of Product Development and Community Outreach

In April 2015, we developmentally integrated the former head office for regional human resource development and the former head office for product development and established the head office for product development and social contribution. The head office consists of a Solutions Center, Innovation Center and International Exchange Center under the authority of the president, director of the head office. Each center has promoted advancement of education and research, social contribution activities and international exchange activities that the National Institute of Technology, Toyama College seeks to fulfill in coordination and cooperation with each center, in order to maintain its original charter.

The head office has made efforts to develop practical human resources with extensive internationality and creativity by actively promoting product development operations to meet the needs of local areas as well as through coordination and cooperation with local communities and companies. As a leader of higher professional schools in Japan, we make every effort to contribute to local industry development and regional activation, taking advantage of our accumulated knowledge in basic research, technology development and educational practical training.

### Solution Center for Product Development

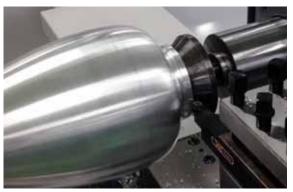
Demands for product development based on advanced technologies are increasing. For example, technical innovation to address environmental and energy issues, automation of road transportation systems, expectations for the evolution of ICT and the creation of various service systems using big data and advancements in robot technology and expectations for expanded applications in the medical and welfare fields.

The Solution Center is an organization that was newly launched as a base of product development, social contribution activity and regional cooperation at our educational institution in order to immediately address such issues. Based on the needs of industry, the center has promoted multidisciplinary research beyond the framework of departments and Advanced Courses and voluntarily and agilely conducts activities related to the entire process of "manufacturing" (planning, proposal and manufacturing).

We have made consistent efforts in our support of solutions to technical issues and promotion of product development in local areas through a series of activities mentioned above. In particular, we have responded to the design of trial products and manufacture, measurement / evaluation, improvement of equipment / devices and technical consultation in the fields of machinery, electricity / electronics and control / information using measuring instruments and processing machines, various analysis software owned by our educational institution. We also continue to make preparations for comprehensive support of product development and business improvement in order to conduct market trend (consumer needs and trends) surveys, marketing, business consultation and other initiatives.

We will also make efforts to pass on and develop technologies and to develop human resources truly required in local areas. Creative "manufacturing" responding to a new generation and superior engineers who can support such manufacturing are required. To develop human resources who have a high sense of ethics and technical capability and play a role as the next generation, we will develop educational programs and plan engineer development seminars to improve product development capacity. Although a school has an obligation to produce engineers and business persons who support communities and companies as its graduates, in addition to this, we are committed to actively engage in the provision of new competitive technologies and the development of human resources for local companies.





Product development seminar

Support for issue resolution of aluminum casting finishing

### Innovation Center for Cooperative Research

The Innovation Center for Cooperative Research is an organization that was established to support improvement of education and research abilities of our teaching staff and advancement of our research activities. Main operations include support for acquisition of competitive funds and promotion of collaboration with companies, local governments, other higher professional schools, universities (colleges) and other research institutions. The center has implemented measures to increase the research level of our teaching staff such as holding of "Green Innovation Forums" in order to organize research projects and seek collaboration with local communities and other institutions as well as subsidize individual research. In joint research projects with companies and contracted research, the center will be expected to play a central role as coordinator.

The center aims to initiate research activities at our educational institution by these activities of "support," "improvement" and "connection" to increase the level of graduation work and special research of students and enhance the willingness of students.

This is because experience in reseach collaboration with teaching staff stimulates students and makes a significant

contribution to the enhancement of awareness in voluntary ingenuity. We are certain that these activities at the center will lead to the development of practical and creative engineers who can meet the needs of the local industry.

The center has also promoted collaboration with other national colleges in the Tokai and Hokuriku districts. Through joint presentations at exhibitions and joint implementation of a small hydroelectric generation idea contest, the center has made efforts to increase the research and education collaboration levels.

Practices and operations related to intellectual property such as patents and utility models are important roles of the center. The center has committed itself to not only promotion of creation, protection, control, evaluation and utilization of intellectual property at our educational institution but also educational activities on intellectual property in collaboration the national colleges in the Tokai and Hokuriku district.





Green innovation forum

Small hydroelectric generation idea contest

## Center for International Education and Research

Along with globalization, social systems are being forced to undergo change. Japanese companies have promoted globalization to respond to declines in domestic demand and changes in international situations. It has become common endeavor to develop business with emerging countries with significant economic development or to develop unexplored overseas markets. It is also essential to establish and operate offices and manufacturing bases in foreign countries. Human resources who lead local communities from a global perspective are in high demand.

In response to such changing situations, higher professional schools in Japan have made efforts to promote education that cultivates internationality, encouraging development of creative engineers and business persons. Higher professional schools aim to develop human resources who can understand and communicate with people from different cultures, human resources who can accurately assert themselves while cooperating with people and global human resources who can contribute to the development of a sustainable society. Of course, our educational institution has conducted various activities to develop engineers and business persons who deserve to be next-generation leaders and can respond to urgent issues face-to-face.

The Center for International Education and Research at our educational institution was prepared as a base organization to support these activities and has made significant efforts. In order to develop students with international perspectives, internationality and communication skills appropriate for global society, and promote overseas research and study of faculty members, the center has extended further globalization in education and research. In addition, it has actively enhanced language education, acceptance of short-term students from foreign countries, support for language training and overseas internships for Japanese students. Furthermore, the center has promoted holding international symposiums and implementation of international joint research in collaboration with overseas universities and local companies, and the conclusion of international exchange agreements. The center desires to be rooted in local communities and contribute to the development of highly-professional human resources who have international perspectives.



South Eastern Regional College (SERC), Northern Ireland, the UK Dr. Sotomi Ishihara, president of our college, receives the title of visiting professor at SERC's graduation ceremony



International conference for students

## Library and Information Center

### Library

The libraries are located on the Hongo Campus and Imizu Campus. The Hongo Library has about 75,000 books in the fields of science and engineering and about 870 kinds of magazines, and Imizu Library has about 79,000 books in the fields of merchant marine, electronic information and international business and about 1,000 kinds of magazines for study, education, research and other topics. Also over 10,000 titles of electronic journals are available at both campuses. In the libraries, an extensive English reading corner, certification exam exercise book corner for employment / admission support, etc., and audiovisual materials (DVD, etc.) are available.

The libraries are open not only to our own students and teaching staff but also to the public as well.

### Information Center

The Information Center is located on the Hongo Campus and Imizu Campus, and offers introductory education and advanced professional education on information processing education, support for research of teachers and students and job performance of teaching staff, etc., network environments and information services.

The center also has 7 seminar rooms in total at both campuses as shared facilities, and administers more than 300 PC terminals, an internal network and external network (SINET).

The Information Center is available after class as well, and students from all departments take advantage of the Internet, e-mail, application software for submission of assignments, and graduation work.

Hongo Campus



Library Reading Room

Imizu Campus

Library Hours

Imizu Library

Mon. – Fri.

9:00-19:00

Sat.

13:00-17:00

Mon. - Fri.

9:00-17:00

Closed on Sat.

Hongo Library

Mon. - Fri.

8:30-21:00

Sat.

10:00-15:00

During examination period 10:00-17:00

Mon. - Fri.

8:30-17:00

Closed on Sat.

Academic

: Period

Vacation Period



Library Reading Room

## Marine Training and Research Center, Training Ship "Wakashio Maru"

### Imizu Campus

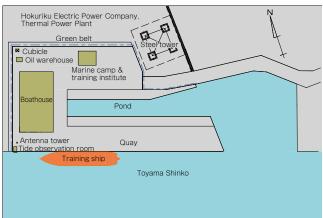
### Marine Training and Research Center(6-4, Horiesengoku, Imizu City)

In March 2015, the center was relocated to a newly built site (6-4, Horiesengoku, Imizu City) 3 kilometers away from Imizu Campus. The center is located on the north side of the east end of Toyama Shinko Port (within the Fushiki-Toyama Port, Shinminato District), and the entrance is near the Nakanoguchi Intersection on Route 415. The site area is 11,232m. Buildings include a boathouse, marine camp & training institute, oil warehouse and

tide observation room, equipment such as antenna tower, overhead traveling crane, 150m dedicated quay (the training ship "Wakashio Maru" is moored there), pond and floating dock.

The center is mainly used for practical training conducted by the Department of Maritime Technology, the campus-wide cutter race competition, and extracurricular programs including the yacht club and the boat club (cutter club). The center is also used for extension lectures open to local youth and citizens and for research and study by companies and research institutes, etc.

The boathouse includes lecture rooms and technique & work rooms. Also observation equipment for experiments and research, models necessary for maritime education, lifeboats, yachts, cutters (small boats) and other related equipment are stored and used here.



Layout of Marine Training and Research Center

## 8. School Life

## Academic Calendar (2015 Academic Year)

April: • Entrance Ceremony • Club Recruitment (Organized by Student Council) • Freshman Orientation	August: • Summer Vacation (through end of September) • All Japan Technical Colleges Athletic Meet	December: • Vocational Guidance • Winter Vacation (through early January)
May: • Freshmans' Overnight Study Camp • Intramural Ball Sports Day	September: • Graduation Ceremony – Department of Maritime Technology	January: • Vocational Guidance • Recommendation Entrance Examination
June: • Interscholastic Athletic Meet • First-Semester Mid-term Examinations	October: • Factory Tours (fourth-year students) • Tokai-Hokuriku District Robot Contest • Vocational Guidance	February: • General Entrance Examination • Final Examinations • Thesis Presentations
July: • Hokuriku District Technical Colleges Athletic Meet • Cutter Race Competition • First-Semester Final Examinations	November: • School Festival • Industry Research Workshop • Second-Semester Mid-term Examinations	March: • Graduation Ceremony

## Club Activities

### Hongo Campus

### Athletic Team Clubs Cultural Clubs

Track and Field Soccer Baseball Judo Japanese Archery Kendo Volleyball Basketball Rugby Badminton Tennis Handball Swimming **Table Tennis** Soft Tennis

Brass Band Mechatronics Technologies Sado (Tea Ceremony) Piano Art Popular Music Photography Go (Japanese Board Game) Shogi (Japanese Chess) Railroad

### Imizu Campus

### Athletic Team Clubs Cultural Clubs Yachting Cutter Track and Field Rugby Football Basketball Volleyball Tennis Judo Baseball Soccer **Badminton**

### Athletic Circles

Table Tennis Kendo Swimming Free-style Dancing

Mechatronics Technologies Research **Cultural Circles** Sado Live band circle International Exchange Seminar Volunteer Group Art String Music **Classical Japanese Dance** Literary Society Entrepreneurial Research Group "Kaiou Maru" Group Marine Engineering Group Calligraphy Photography

School Newspaper

Brass Band

**Digital Media Creation** 



Japanese Archery



Go (Japanese Board Game) and Shogi (Japanese Chess)





Cutter

## Welfare Facilities

### Hongo Campus

### Student lounge

The student lounge on the first floor of the library is a multipurpose space where students can conduct study sessions, meetings and seminars. The lobby of the library also provides a space for relaxation.

Lodging Center for Extracurricular Programs This center serves as a rest and sleep facility during special sports sessions or for other extracurricular programs. Teachers lodge with the students and provide guidance in their meetings and other activities.

### Imizu Campus

### Nagonoura Hall.

The cafeteria, which can seat 100 persons, is located on the first floor.There is a conversation corner next to the cafeteria. The second floor consists of a multipurpose assembly room, a training room for meetings and events, and a student council room for members to coordinate and conduct activities. In addition, there is an art room and a large Japanese-style room (26m<sup>3</sup>) that provides a spacious atmosphere for Sado and other cultural activities. Adjacent to the hall is a co-op shop that sells not only food and drink but also school supplies and coordinates various school-related examinations like TOEIC and Eiken. The co-op helps to enhance and contribute to a comfortable student life.

### Student Counseling Room

The director, counseling staff (teaching staff), nurse, and counselors (clinical psychologist) are availabe in the student counseling room. The staff seeks to provide solutions for various consultations on school life including work and career, relationships with friends, clubs, and consultations on mental health. Also the room can accept consultations from parents (guardians) as well as students. The office hours of the student counseling room at each campus are as follows:

Но	ngo Ca	ampus		١m	izu Ca	ampus	
Student Consulting Room	Mon. – Fri. (	Counseling staff	15:30 - 17:00		Mon. – Fri.	Counseling staff	15:30 - 17:00
(next to the office of Academic Affairs)	Tue., Wed.	Counselor	13:00 - 17:00	Student Consulting Room	Mon., Wed.	Counselor	Mon. 14:30 - 17:30
Dormitory	second Tue.	Counselor	17:00 - 21:00	Nurse's Office)			Wed. 13:30 - 17:30
School Nurse's Office	Mon. – Fri.	Nurse	8:30 — 17:00	School Nurse's Office	Mon. – Fri.	Nurse	8:30 - 17:00

### Dormitory

The dormitories were built with convenience of class attendance in mind. The dormitory at the Hongo Campus is called "Gyogaku-Ryo" and the dormitory at Imizu Campus is called "Wakai-Ryo".

Unlike an "arbitrary dormitory" at a university or boarding house, these dormitories are featured as "educational dormitories" and are intended not only to provide a place to live for students but also develop the moral tone to value social order and ethics through group living as part of our education.

Unique annual events hosted by student groups are planned in order to promote friendships between dormitory students. Therefore, conversations with friends and relationships with senior students that are difficult from home are typical at dormitories, resulting in a place for communication between people.

### Gyogaku-Ryo (Hongo Campus)

As of May 1, 2015

Department Grade	1st	2nd	3rd	4th	5th	Total
Mechanical Engineering	12(3)	9	11(1)	11(1)	5	48 (5)
Electrical and Control Systems Engineering	10(1)	13	9(1)	11	7	50 (2)
Applied Chemistry and Chemical Engineering	8(3)	11 ( 8)	9(3)	12(4)	8(3)	48 (21)
ECOdesign Engineering Course	3	1				4
Total	33(7)	34 (8)	29(5)	34(5)	20(3)	150 (28)

The figures in parentheses are the number of female students.

Wakai-ryo (Imizu Campus	As c	of May	1, 2015			
Department Grade	1st	2nd	3rd	4th	5th	Total
Electronics and Computer Engineering	17(6)	7	12(6)	10(3)	6(2)	52 (17)
International Business	21 (18)	12(8)	10(8)	9(5)	7(5)	59 (44)
Maritime Technology	19(4)	18(3)	18(2)	13(3)	14(4)	82 (16)
Maritime System Engineering Course						
Control Information Systems Engineering Course		3(2)				3 (2)
International Business Course						
Total	57 (28)	40 (13)	40(16)	32(11)	27(11)	196 (79)

The figures in parentheses are the number of female students.

## Technology Promotion Association

National Institute of Technology, Toyama College Foundation for Advancement of Technology was established for the purpose of creating intellectual resources in industry-academia-government collaboration, activation of local economies and subsidization necessary for education through research exchanges based at our college. The number of member companies totals 201 and the number of individual members totals 18 (as of May 1, 2015).

The organizing committee of the foundation for the advancement of the technology promotion association was launched in August 2005 and then the foundation was established in October 2005. It was reorganized in October 2009 and evolved into its current form at the annual meeting in December 2009 after the National Institute of Technology, Toyama College was established. Chairmen since its foundation are:

- 1st Chairman: Ichiro Tanaka, President, TANAKA SEIMITSU KOGYO CO., LTD.
  - (Term: October 24, 2005 October 31, 2007)
- 2nd Chairman: Kaneyoshi Miyano, President, Tateyama Machine Co., Ltd.
  - (Term: November 1, 2007 December 13, 2009)
- 3rd Chairman: Koichi Kawamura, President, ASAHI PRINTING CO., LTD.
  - (Term: December 14,2009 October 27, 2011)
- 4th Chairman: Noboru Matsuda, President, FINECS CO., LTD.
- (Term: October 28, 2011 October 31, 2013)
- 5th Chairman: Toshikazu Todo, President, TODO KOGYO CO., LTD. (Term: November 1, 2013)

Examples of business for member companies are shown below as business of Foundation for the Advancement of Technology.

Ocooperative business for human resources development

As an independent business of "small to medium-sized company human resource development business utilizing higher professional schools" implemented in the fiscal year of 2007, an "energetic and fresh engineer development program" is implemented every year. In fiscal year of 2014, the program was held twice as a human resources development business by company problem-solving skills development course - and the total number of participants was 53.

Lecture presentation

- Held a lecture presentation under the title "Current status and issues of electricity business on the basis of the Great East Japan Earthquake" by Masato Kontani, assistant general manager of Marketing & Sales Division, Managing Executive Officer, Hokuriku Electric Power Company (on October 28, 2011)
- Held a lecture presentation under the title "Production technology and human resources development in the age of globalization" by Yoshikazu Nakahama, Senior Specialist in the Tokyo Office, DAIKIN INDUSTRIES, Ltd. (on October 26, 2012)
- Held a lecture presentation under the title "Development of human resources who will create the future of Japan - Recent trends in universities and higher professional schools -" by Sotomi Ishihara, President, National Institute of Technology, Toyama College (on October 31, 2013)
- Held a lecture presentation under the title "To create a new future for higher professional schools - confronting discontinuity of environmental change -" by Seiji Kino, Director, National Institute of Technology (on October 31, 2014)

Examples of support business by the Foundation for the Advancement of Technology are as follows: Support for student internship business

- •Provision of a meeting place for member companies and teaching staff / students of the National Institute of Technology, Toyama College
- Support for education and research of students of the National Institute of Technology, Toyama College by visiting professors and senior fellows
- Support for career education
- Ocompany research workshop to introduce member companies to students
- Subsidization for joint research

### Open Lectures (in the school year of 2014)

Target participants	Number of open lectures
Engineers / Specialists	1 lecture
Junior high school students	18 lectures
Elementary school students / Junior high school students	2 lectures
Preschool children	1 lecture

## Adopted Grants-in-Aid for Scientific Research

Grant Programs for Scientific Research from the Ministry of Education, Culture, Sports, Science, and Technology

		-				
Category	Year	2010	2011	2012	2013	2014
Grant-in-Aid for Scientific Research on Innovative Areas	Number	1	0	0	0	0
	Amount	9,360	0	0	0	0
Grant-in-Aid for Scientific Research (A)	Number	0	0	1	1	0
Granten-Aid for Scientific Hesearch (A)	Amount	0	0	16,640	11,700	0
Grant-in-Aid for Scientific Research (B)	Number	0	1	1	1	1
Granten-Aid for Scientific Hesearch (B)	Amount	0	8,840	5,590	5,200	9,620
Grant-in-Aid for Scientific Research (C)	Number	13	13	16	13	15
	Amount	24,830	16,770	25,090	20,540	23,140
Grant-in-Aid for Challenging Exploratory Research	Number	0	1	2	1	2
Grant-In-Alu for Granenging Exploratory nesearch	Amount	0	1,950	3,510	1,040	1,690
Grant-in-Aid for Young Scientists (B)	Number	3	3	5	7	7
	Amount	3,380	7,540	9,490	10,530	7,670
Grant-in-Aid for Research Activity Start-up	Number	0	0	0	0	2
	Amount	0	0	0	0	2,080
Grant-in-Aid for JSPS Fellows	Number	0	0	0	0	1
Grant-In-Aid for 551 51 61003	Amount	0	0	0	0	1,233
Grant-in-Aid for Encouragement of Scientists	Number	3	2	2	1	2
Grant-III-Aid for Encouragement of Scientists	Amount	1,440	1,200	1,200	600	1,100
Total	Number	20	20	27	24	30
	Amount	39,010	36,300	61,520	49,610	46,533

Amount: Unit 1,000 Yen (Including Indirect Expenditures)

## Joint Research

Year	2010	2011	2012	2013	2014
Number	43	42	44	43	44
Amount	14,207	11,727	12,772	11,670	13,633

Amount: Unit 1,000 Yen

## Funded Research

Year	2010	2011	2012	2013	2014
Number	7	14	20	11	11
Amount	25,369	18,530	27,817	47,551	38,159

Amount: Unit 1,000 Yen (Including the Indirect Expenditure)

## Donations Received

Year	2010	2011	2012	2013	2014
Number	35	27	21	20	746
Amount	25,862	17,119	20,257	14,859	38,071

Amount: Unit 1,000 Yen

## Academic agreements with international institutions

#### Exchange with Kyung Hee University (South Korea)

Our college concluded an academic exchange agreement with all colleges of Kyung Hee University (Seoul City and Suwon City in South Korea).

The first academic exchange with Kyung Hee University was the conclusion of an academic exchange agreement with the Environmental Applied Chemistry Department of Kyung Hee University (in Suwon City, South Korea). The conclusion of an academic exchange agreement with all colleges of Kyung Hee University enabled student exchange and research exchange in all departments of our college encompassing the engineering, business and maritime fields.

#### Exchange with Northeastern University (China)

The first international academic exchange was the conclusion of the agreement between one of our former colleges "Toyama National College of Technology" and Northeastern University (Shenyang, Liaoning, China) in December, 2003. Along with integration of our colleges, this agreement was sealed again in October 2010 for the purpose of deeper international exchange.

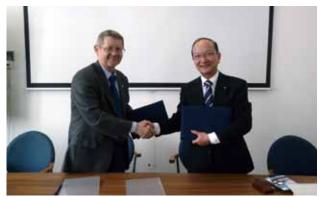
Northeastern University is a top-ranking university in China. Research exchanges such as accepting visiting researchers of Northeastern University for a short period or sending our faculty members as a long-term researcher to Northeastern University have been conducted.

#### Exchange with Kauai Community College, University of Hawaii (U.S.A)

In October 2009, an agreement between our college and Kauai Community College, University of Hawaii in U.S.A (KCC) was concluded. And in November 2010, a framework agreement was concluded between Kauai Community College, University of Hawaii and 5 higher professional schools in Japan (including 4 more higher professional schools that have a Department of Maritime Technology). We have made efforts to promote international exchange programs for faculty members, sharing and improvement of technical knowledge related to maritime affairs and collaboration in technology and education.



Exchanges between students of Kyung Hee University and students of our college



Dr. Istvan Barsony, Director of MFA (left) and Dr. Sotomi Ishihara, President of our college (right) (International academic exchange agreement was concluded in January 2015)

At present, while our students take international internship courses and conduct cross-cultural activities at KCC, KCC students study at our college for a short period.

## Exchange with South Eastern Regional College (Northern Ireland, the UK)

Our college sealed an exchange agreement with South Eastern Regional College, located in Northern Ireland the UK, in March 2010, and has conducted international internship programs for students in the Advanced Courses. We have continued mutual visits of faculty members, promoting exchange activities.

#### Exchange with King Mongkut's Institute of Technology Ladkrabang (Thailand)

Our college sealed an exchange agreement with King Mongkut's Institute of Technology Ladkrabang, Thailand, (KMITL) that is a framework agreement school of the National Institute of Technology, in August 2013, and have mutually accepted short-term international students. And we have invited faculty members of KMITL to implement lectures for students.

#### Exchange with Institute for Technical Physics and Materials Sciences, Hungarian Academy of Sciences and Pázmány Péter Catholic University (Hungary)

Our college concluded international academic exchange agreements with the Institute for Technical Physics and Materials Sciences, Hungarian Academy of Sciences (MFA) in January 27, 2015 and with Pázmány Péter Catholic University (PPCU) in February 18.

Both institutions are located in Budapest. MFA is an academic research institution dedicated to researching nanomaterials and nano systems, and is an institution respected for its high level of research in Europe. PPCU is one of the oldest universities in Hungary and was established 360 years ago. PPCU aims to launch academic fields that will serve actively in the industry of the 21th century such as information engineering and bioengineering. In the future, we will promote interchanges of faculty members and students with the aim of developing research and education in collaboration with one another.



Canoe Practical Training at KCC



Robotic Practical Training at SERC

## Overseas Training Programs

An overseas training program was started in 2006 for the aim of improving students' communication skils in English through being involved in cross-cultural differences and practical experiences in foreign countries. Prior to the establishment of the overseas training program, we gave thorough consideration to the safe and smooth implementation of overseas training such as signing an agreement with international institutions and organizing a support system for the training program by fuculty members.

### One-year study abroad program

In 2006, our college concluded an agreement with a high school (former Malaspina High School) attached to Vancouver Island University in Nanaimo City on the west coast of Canada. Since April 2008, a one year study abroad program has been conducted.

#### Six-month study abroad program

Our college concluded an agreement in 2005 with University of Victoria in Canada. Since April 2006, English training for 4th year students of the Department of International Distribution (at present the Department of International Business) has been conducted through experiencing cross-cultural differences for about 5 months at the English Language Center, University of Victoria, in Victoria City on the west coast of Canada.

#### International Internship in Hawaii, U.S.A.

Location: Kauai Community College, University of Hawaii (Exchange agreement was concluded in 2009)



Students studying at a high school attached to Vancouver Island University



Students studying at the English Language Centre, University of Victoria

- Attendee: Students in the Advanced Courses (Maritime System Engineering Program), 4th-year students in the academic department (Department of Maritime Technology)
- Period: 3 weeks
- Content: Maritime technical training such as Polynesia traditional navigation and English language training

□ International Internship in Northern Ireland, the UK

- Location: Local Company and South Eastern Regional College (Exchange agreement was concluded in 2010)
- Attendee: Students in the Advanced Courses (International Business Program, Control Information Systems Engineering Program)
- Period: 4 weeks
- Content: International Business Program: Internship and professional lectures at college (for 2 weeks, each) Engineering Program: English language
  - training and practical training (for 2 weeks, each)

### Overseas Internship in the Southeastern Asia

Location: Thailand and Malaysia-based subsidiary of company in Toyama prefecture

- Attendee: Students in the Advanced Courses, 4th-year students in academic departments
- Period: 2-3 weeks

Content: Practical training

#### Cross-Cultural Experience

Location: Each educational institution in Canada, South Korea, Taiwan, Russia, and U.S.A. (Hawaii)

- Attendee: 3rd, 4th and 5th-year students in academic departments
- Period: 3-4 weeks
- Content: Practical training in learning the foreign language and culture of each country

# Acceptance of short-term international students

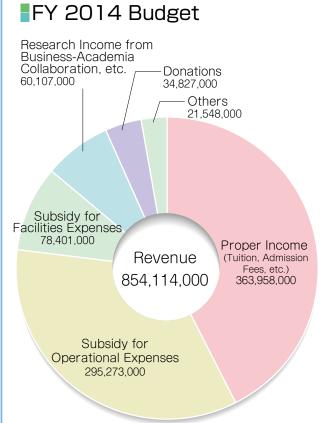
According to the framework agreement with the National Institute of Technology, we have accepted short-term international students from King Mongkut's Institute of Technology Ladkrabang since April 2012, and concluded an exchange agreement with the institute in August 2013 to further increase the number of students and expand the exchange.

We also have accepted short-term international students from Temasek Polytechnic (Singapore) and Nanyang Polytechnic (Singapore) that are comprehensive affiliated schools of the National Institute of Technology and exchange affiliated schools of our college.



International students participating in our college festival

## **12. Financial Affairs**

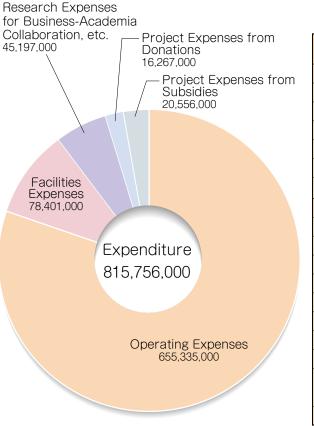


## Facilities

### (Hongo Campus)

Site Name Division	Hongo Site	Shimohori Site	Asahi Site	Total
Property				
College Site	55,472			55,472
Outdoor Athletic Fields	36,561			36,561
Dormitory Site	12,535			12,535
Housing Block for School Staff	2,863	596	365	3,824
Total	107,431	596	365	108,392
Building				
College Building	13,973			13,973
Gymnasium	3,674			3,674
Dormitory	4,493			4,493
Library	1,633			1,633
Welfare Facilities	1,227			1,227
Administration Division	1,483			1,483
Others	1,023			1,023
Facilities Management Rooms	245			245
Housing Complex for School Staff (Number of Households)	789 (12)	135 (2)	105 (1)	1,029 (15)
Total	28,540	135	105	28,780

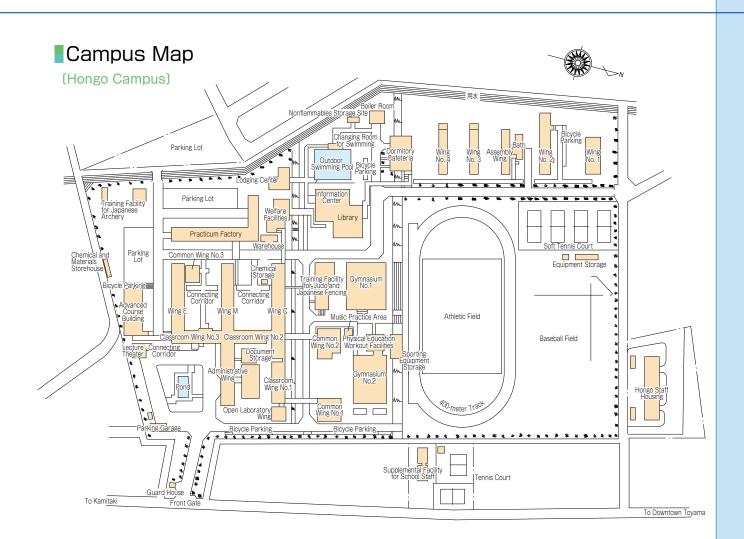
(Unit: ㎡)



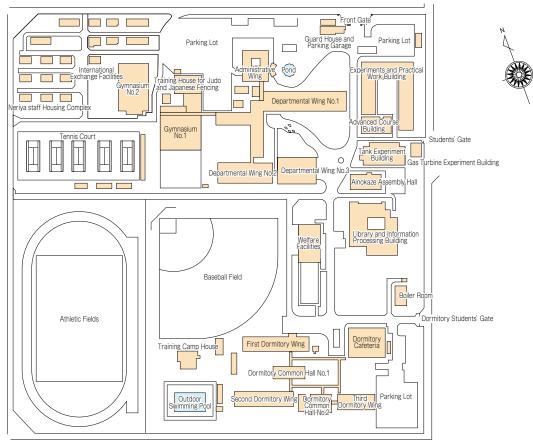
### (Imizu Campus)

Division Site Name	Ebieneriya Site	Horiesengoku Site	Total
Property			
College Site	45,336		45,336
Outdoor Athletic Fields	41,703		41,703
Facilities Site for Experiments and Practical Training, etc.	15,808		15,808
Dormitory Site		11,232	11,232
Housing Site for School Staff	6,962		6,962
Total	109,809	11,232	121,041
Building			
College Building	14,099	1,044	15,143
Gymnasium	3,031		3,031
Dormitory	7,035		7,035
Library	1,626		1,626
Welfare Facilities	1,347		1,347
Administration Division	1,537		1,537
Others	996		996
Facilities Management Rooms	399		399
Housing Complex for School Staff ( Number of Households)	1,127 (18)		1,127 (18)
Total	31,197	1,044	32,241

(Unit: mੈ)



(Imizu Campus)



## Admission Capacity and Current Enrollment

### (Hongo Campus)

(Hongo	(Hongo Campus) As of May 1, 20											
Admission Ca	Grade	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Advanced Course First Grade	Advanced Course Second Grade	Total			
Department of	of Mechanical Engineering (40 students)	45 (3)	47 (2)	35 (2) ②	48 ( 3) ①	37 (4)			212 (14) ③			
Department of E	lectrical and Control Systems Engineering (40 students)	51 (3)	46 (4)	41 ( 4)	39 ( 3) ①	35 (1)			212 (15) ①			
Department of Ap	oplied Chemistry and Chemical Engineering (40 students)	48 (29)	43 (27)	39 (20) ①	48 (20)	42 (21)			220 (117) ①			
ECOdesign							25 (3)		25 (3)			
Engineering Course	Mechanical and Electrical Systems Engineering							17 (1)	17 (1)			
	Functional Materials Engineering							14 ( 6)	14 (6)			
	Total	144 (35)	136 (33)	115 (26) ③	135 (26) ②	114 (26)	25 (3)	31 (7)	700 (156) (5			

Note 1: Numbers in parentheses include numbers of female students. Note 2: Circled numbers include numbers of foreign exchange students.

### (Imizu Campus)

As of May 1, 2015

As of May 1, 2015

Grad Admission Capacity		Grade	First	Grade	Second	d Grade	Third Grade	Fourth Grade	Fifth Grade	Trainee	Advanced Course First Grade	Advanced Course Second Grade	Total
Department of Election	ronics and Computer Engineering	(40 students)	54	(13)	46	(11)	43 ( 9)①	40 (12) ②	42 (11) ①				225 (56)④
Department of	International Business	(40 students)	52	(43)	42	(36)	38 (32)	46 (38)	35 (31)				213 (180)
Department of	Nautical Science Course	(20 students)	22	(7)	22	(7)	19 (8)	17 (8)	19 (10)	21 (4)			120 (44)
Department of Nautical Science Course Maritime Technology Marine Engineering Course		(20 students)	19	(2)	19	(1)	17 ( 0)	19(3)	23 (2)	17 ( 0)			114 (8)
Department of	Electric Control Engineering	(40 students)							1				1 ( 0)
Maritime Syste	m Engineering Course	(4 students)									2 ( 0)	3 (1)	5 (1)
Control Information Systems Engineering Course (8 students)										11 (2)	11 ( 4)	22 (6)	
International Business Course (4students)		(4students)									7 (6)	5 (5)	12 (11)
	Total		147	(65)	129	(55)	17 (49)①	122 (61) ②	20 (54) ①	38 (4)	20 (8)	19 (10)	712 (306) ④

Note 1: Numbers in parentheses include numbers of female students. Note 2: Circled numbers include numbers of foreign exchange students.

## Enrollment by Place of Origin

### (Hongo Campus)

Place	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Advanced Course First Grade	Advanced Course Second Grade	Total
Toyama Prefecture	135 (34)	132 (31)	110 (25)	131 (26)	110 (26)	24 (3)	31 (7)	673(152)
Miyagi Prefecture				1				1
Kanagawa Prefecture	1 ( 1)		1					2(1)
Niigata Prefecture	1							1
Ishikawa Prefecture	1	1						2
Nagano Prefecture		1						1
Gifu Prefecture	4		1		3	1		9
Shizuoka Prefecture	1							1
Aichi Prefecture		1 ( 1)			1			2(1)
Shiga Prefecture	1	1 ( 1)		1				3 ( 1)
Malaysia			2(1)	1				3 ( 1)
Mongolia				1				1
Indonesia			1					1
Total	144 (35)	136 (33)	115 (26)	135 (26)	114 (26)	25 (3)	31 (7)	700 (156)

Numbers in parentheses include numbers of female students.

### (Imizu Campus)

As of May 1, 2015

Flace	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade	Trainee	Advanced Course First Grade	Advanced Course Second Grade	Total
Toyama Prefecture	129 (59)	121 (54)	103 (47)	111 (60)	107 (45)	30 (3)	20 (8)	16 (9)	637 (285)
Ishikawa Prefecture	1	З	4	З	5(1)	1			17 ( 4)
Hokkaido	1					2			З
Miyagi Prefecture	2		1 ( 1)	2					5(1)
Yamagata Prefecture				1					1
Fukushima Prefecture	1 ( 1)	1 ( 1)	1		1				4 (2)
Ibaragi Prefecture	1 ( 1)			1					2(1)
Saitama Prefecture	1 ( 1)								1 ( 1)
Chiba Prefecture	1	1							2
Tokyo						1 ( 1)			1 ( 1)
Kanagawa Prefecture		1	1		1				З
Fukui Prefecture	1(1)			1	1 ( 1)	1			4 ( 2)
Niigata Prefecture					1				1
Nagano Prefecture	4(1)		2						6(1)
Gifu Prefecture	1		1			2			4
Shizuoka Prefecture	1(1)	1	2(1)	1	1 ( 1)	1		2	9(3)
Aichi Prefecture					1 ( 1)				1 ( 1)
Mie Prefecture	1								1
Osaka Prefecture	1	1							2
Yamaguchi Prefecture								1 ( 1)	1 ( 1)
Kagawa Prefecture			1						1
Saga Prefecture	1								1
Kagoshima Prefecture					1 ( 1)				1
Sri Lanka			1		1 ( 1)				2(1)
Malaysia				1 ( 1)					1 ( 1)
Cambodia				1					1
Total	147 (65)	129 (55)	117 (49)	122 (61)	120 (54)	38(4)	20 (8)	19 (10)	712(306)

Numbers in parentheses include numbers of female students.

### (Hongo Campus)

## Alumni employment patterns

Core Course

#### Department of Mechanical Engineering

ANA Line Maintenance Technics / CK METALS Ltd. / YKK Corporation / Asahi Printing Company / Idemitsu Kosan Co., Ltd. / Kracie Holdings Ltd. / Sankyo Tateyama, Inc / Jpec Co., Ltd. / Daihatsu Motor Co.Ltd. / Tamadic Co., Ltd. / Chuetsu Pulp & Paper Co., Ltd. / TOYOGASMETER.Co., Ltd / Toyama Chemical Co., Ltd. / ZEON Corporation / NHK SPRING Co., Ltd. / FINECS Co., Ltd. / Hokuriku Electric Power Company, Incorporated / Maruzen Petrochemical / YOSHINDO Inc / Lead Chemical Co., Ltd.

#### Department of Electrical and Control Systems Engineering

ANA Line Maintenance Technics / JA NANOHANA. / NTT FACILITIES / YKK Corporation / iFORCOM Co., Ltd. Kansai Association of Corporate Executives / The Kansai Electric Power Company, Incorporated / Johnson Controls. / Seiko Epson Corporation / Tamadic Co., Ltd. / Central Japan Railway Company / Tokyo Electric Power Company, Incorporated (TEPCO) / NGK SPARK PLUG Co., Ltd. / Hokuriku Electrical Safety Inspection Association / Hokuriku Electric Power Company, Incorporated/ Muratec C.C.S.

### Department of Applied Chemistry and Chemical Engineering

DIC / YKK Corporation / Idemitsu Kosan Co., Ltd. / Kracie Holdings, Ltd. / SANSHO MEC Co., Ltd. / Showa Denko Ceramics Co., Ltd. / Astellas Pharma Tech Co., Ltd. / Toyama Chemical Co., Ltd. / TOYAMA SUGAKI Co., Ltd. / NIPPON GENE Co., Ltd. / Nihonkai environmental service Inc / FINECS Co., Ltd. / YOSHINDO Inc

### Advanced Courses

### ECOdesign Engineering Courses Mechanical and Electrical System Engineering Department

SANKO GOSEI Ltd. / ZEON NORTH. / Daito Pharmaceutical Co., Ltd. / Tateyama Kagaku Group / TOYAMA CHIHOU TETSUDOU INC / Masuyamadengo / MIURA Co., Ltd. / Mizuno-machinery, Inc

#### ECOdesign Engineering Courses Functional Materials Engineering Department

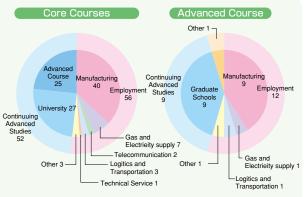
Kurotani Corporation / Nichi-Iko Pharmaceutical Company, Limited / NIPPON SHOKUBAI Co., Ltd. / YOSHINDO Inc

### Alumni patterns of continuing advanced studies

			Core C	Advanced Course						
School to enter	Mechanical Eng.	Electrical and Control Systems Eng.	Applied Chemistry and Chemical Eng.	School to enter Bectrical and Corrotal System Eng States Eng States Eng States System Eng States Eng State		School to enter	Mechanical and Electrical System Eng.	Functional Materials Eng.		
National Institute of Technology. Toyama College Advanced Courses	11	8	6	The University of Tokyo 1			Tokyo Institute of Technology Graduate Schools	2		
Osaka University		1		Tokyo University of Agriculture and Technology			2	Toyohashi University of Technology Graduate Schools		1
Kanazawa University		1	2	Tohoku University		1		Nagaoka University of Technology Graduate Schools	З	
Kyoto Institute of Technology			1	University of Toyama			З	Nagoya University Graduate Schools	1	
Gunma University		1		Toyohashi University of Technology	1			Nara Institute of Science and Technology Graduate Schools		1
Tokyo Metropolitan University			1	Nagaoka University of Technology	1	2	З	Hokkaido University Graduate Schools		1
University of Tsukuba	1	1		Nagoya Institute of Technology		1	1			
The University of Electro- Communications		1		Muroran Institute of Technology			1			
				Total	14	18	20	Total	6	3

### Summary

	Alumni	Employment	Continuuing Advanced Studies	Other
Core Courses				
Mechanical Engineering	35	21	14	0
Electrical and Control Systems Engineering	37	19	18	0
Applied Chemistry and Chemical Engineering	36	16	20	0
Total	108	56	52	0
Advanced Course				
Mechanical and Electrical System Engineering	14	8	6	0
Functional Materials Engineering	8	4	З	1
Total	22	12	9	1



As of March 18, 2015

### (Imizu Campus)

## Alumni employment patterns

### Core Course

#### Department of Electronics and Computer Engineering

NTT FIELDTECHNO. / KOUSHI INTEC Inc / SANSHO MEC Co., Ltd. / Shin Nikkei Company, Ltd. / Chubu Electric Power Company, Incorporated / TOAGOSEI Co., Ltd. / FIRST BANK OF TOYAMA / TOYOTA TECHNICAL DEVELOPMENT CORPORATION / Japanese Broadcasting Corporation / Panasonic System Networks Co., Ltd. / Hitachi Kokusai Electric Inc / Nachi-Fujikoshi Corporation / Hokuden-software. Co., Ltd. / Hokuriku Electric Power Company, Incorporated / Hokuriku Plant Services Co., Ltd. / YKK Corporation Kurobe / Toyama Prefectural

#### Department of International Business

Ishitomo home Co., Ltd. / ISEWAN TERMINAL SERVICE Co., Ltd. / GRAPSTONE Co., Ltd. / CAP Inc / Shin Nikkei Company, Ltd. / FIRST BANK OF TOYAMA / Nippon Express Co., Ltd. / Fushiki Kairiku Unso Co., Ltd. / Hotel Kurobe / Hokuriku Electric Power Company, Incorporated / YKK Corporation Kurobe / YKK Business Support Inc / Ishikawa Labor Bureau / Ministry of Foreign Affairs, MOFA / Ministry of Economy, Trade and Industry, METI / Ministry of Land, Infrastructure, Transport and Tourism, MLIT / Tokyo Customs / Toyama Prefectural / Toyama City Hall / Takaoka City Hall / Cabinet Office, CAO / Yokohama Customs

### Department of Maritime Technology

Idemitsu Kosan Co., Ltd. / Intermodal Engineering Co., Ltd. / Ube Shipping & Logistics, Ltd. / Kawasaki Kisen Kaisha, Ltd. / Global Ocean Development Inc / JX Ocean Co., Ltd. / SHIBUYA KOGYO Co., Ltd. / Mitsui O. S. K. Lines / Shintomi Corporation / Shinnihonkai Ferry Co., Ltd. / DAIKIN INDUSTRIES, Ltd. / Taiyo Nippon Kisen Co., Ltd. / Nippon Shipping Co., Ltd / NIHONKAI EISEN Co., Ltd / Nippon Yusen Kabushiki Kaisha / NYK CRUISES Co., Ltd. / Hokuriku Kenko / Hokuriku Plant Services Co., Ltd / YANMAR Co., Ltd. / UNI-X Corporation.

### Advanced Courses

### **Control Information Systems Engineering Course**

Otsuka Pharmaceutical Co., Ltd. / Sankyo Tateyama, Inc / SEIKO EPSON Corporation / Tateyama Kagaku Indudtry Co., Ltd. / Hokuriku Computer Graphics. / MIWA LOCK.

### Maritime System Engineering Course

Japan Drilling Co., Ltd. / Nippon Express Co., Ltd. / SANTOKU SENPAKU Co., Ltd.

#### International Business Course

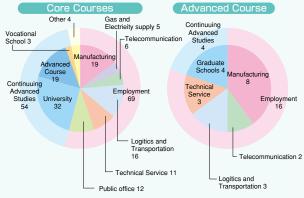
Seals Co., Ltd. / Nissei Industory Corporation. / Japan Open Systems Corporation. / PYRAMID FILM Inc / Hokuriku Computer Graphics. / Hokuriku Denki Shokai. / YKK Corporation /

## Alumni patterns of continuing advanced studies

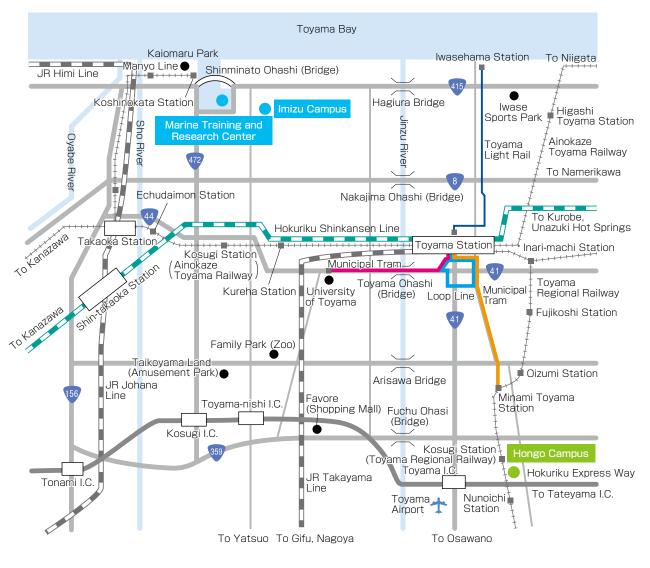
	Core Course									Advanced Course			
School to enter	Electronics and Computer Eng.	! International	Maritime Technology	School to enter	Electronics and Computer Eng.	International	Maritime Technology	School to enter	Control Information Systems Eng.	International	Maritime System Eng.		
National Institute of Technology, Toyama College Advanced Courses	11	6	2	Toyohashi University of Technology	З	1		Osaka Prefecture University Graduate Schools	1				
Ochanomizu University	1			Nagaoka University of Technology	7		3	Tohoku University Graduate Schools	1				
Kanazawa University	1		1	Niigata University	1	1		Toyohashi University of Technology Graduate Schools	1				
Kobe University		1	       	Hokkaido University		1		Japan Advanced Institute of Science and Technology	1				
Saitama University		2		Mie University		1							
Shiga University		2		Kansai University		1							
University of Tsukuba	1	1		Vocational schools	1	2							
Tokyo University of Foreign Studies		1											
University of Toyama	1	2				   							
				Total	27	21	6	Total	4				

### Summary

	Alumni	Employment	Continuuing Advanced Studies	Other
Core Courses				
Electronics and Computer Engineering	48	21	27	0
International Business	46	25	21	0
Maritime Technology	33	23	4	
Total	127	69	54	4
Advanced Course				
Control Information Systems Engineering	11	7	4	0
International Business	6	6	0	0
Maritime System Engineering	З	3	0	0
Total	20	16	4	0



## Access Map



I.C. : Expressway Entrance and Exit

### Hongo Campus

13 Hongo-machi, Toyama City, Toyama Prefecture, 939-8630 Japan

TEL:+81-(0)76-493-5402 FAX:+81-(0)76-492-3859

#### Bus Service:

Take a bus for "National College of Technology" (via Asana-cho or via Shimobori) from Stop No. 5 at the bus terminal in front of the south exit of Toyama Station. Get off the bus at the final bus stop, which is located inside the front gate of the Hongo Campus. It takes about half an hour.

#### Railway Service:

From <sup>•</sup>Dentetsu Toyama" (Toyama Regional Railway) Station Take the train for "lwakuraji", get off the train at Kosugi Station (not to be confused with the Kosugi Station on the Ainokaze Toyama Railway). The time required is about 14 minutes. From the Kosugi Station it is about a 15-minute walk to the Hongo Campus.

#### From Iwakuraji Station

Take a train for "Dentetsu Toyama", get off the train at Nunoichi Station. The time required is about 15 minutes. From Nunoichi Station it is about a 15-minutes walk to the Hongo Campus.

### Imizu Campus

### 1-2 Ebieneriya, Imizu City, Toyama Prefecture, 933-0293 Japan

TEL:+81-(0)766-86-5100 FAX:+81-(0)766-86-5130

#### Bus Service:

Take a bus for "Shinko Higashi\_Guchi" from Stop No.3 at the bus terminal in front of the south exit of Toyama Station. Get off the bus at the "Neriya" bus stop. It takes around half an hour. From the bus stop, it's about a 2-minutes walk to the Imizu Campus.

#### School Bus Service:

Services with fares charged are available morning and evening from Higashi Toyama Station, Toyama Station, Kureha Station Kosugi Station, (Ainokaze Toyama Railway)Takaoka Station, and in the Shinminato Area. Contact the school for more details.

#### Community Bus Service:

Imizu City Community Bus Services are also available. Contact the school for more details.

### http://www.nc-toyama.ac.jp