NATIONAL INSTITUTE OF TECHNOLOGY (KOSEN),

Tomakomai College

Guide 2020

Contents

Our Mottos

(As an individual)
1 The most effective learning fits the individual's personality.
2 Good health is one's most valuable asset.
3 Effort is the key to success.

(As a member of society)
1 A person who loves others and himself
2 A person who is neither too proud nor too humble
3 A person who acts with courage and responsibility

Our Principles

1 Sincere heart
2 Friendly spirit
3 Indomitable will

(Words selected on Feb.25,1966)

College Emblem

Objectives of the College

Education Philosophy

National Institute of Technology, Tomakomai college, through its education, strives to promote enriched humanity, a spirit of autonomy and independence, and facilitates the well-balanced growth of knowledge, morality and health for future engineers, and we train them to contribute to the development of the whole community.

Learning Objectives for Regular Courses

Ⅰ. Humanity
Students acquire enriched humanity, new knowledge and skills, a spirit of autonomy and independence through the curriculum and extra-curricular subjects and activities.

Ⅱ. Practical Ability
Students acquire practical skills and study habits that form af oundation of creativity for their future progress and advancement.

Ⅲ. Global Mind
Students acquire new knowledge and skills, start thinking from a worldwide point of view,and learn fundamental skills for international communication.

Learning Objectives for Advanced Courses

Ⅰ. Humanity
Students acquire enriched humanity, new knowledge and skills, and a broadened perspective through the curriculum and off-campus activities.

Ⅱ. Creativity
Students acquire basic knowledge and skills for creating advanced engineering technologies within a broadened perspective.

Ⅲ. Global Mind
Students acquire new knowledge and skills, develop skills for international communication, and mind with mutual understanding for having the ability to participate actively within the global society.

Learning and Educational Objective(Excerpt of major objectives)

(A) Education : Understanding nature and the environment from a global viewpoint, and acquiring a broad view of history, culture, society and so forth.

(B) Ethics and responsibility : Understanding ethics and internalizing a sense of responsibility as engineers.

(C) Communication : Acquisition of presentation skills in Japanese, including writing, verbal presentation and debate abilities, as well as basic skills for international communication.

(D) Fundamental engineering : Acquisition of basic knowledge and the ability to apply mathematics, natural sciences, information technology and engineering.

(E) Continuous learning : Development of one's self-awareness as an engineer, acquiring the ability to learn on an independent and continuing basis.

(F) Practical technology in one's specialty : Acquisition of the ability to put into practice the technology in one's specialized field from among the engineering fields related to production.

(G) Practical technology in interdisciplinary fields : Understanding other fields of study as well, combining them with one's own field of expertise from a multilateral viewpoint, and acquiring the applied technology applicable to solving problems in interdisciplinary fields.

(H) Technology required by contemporary society and times : Acquisition of technology-including creativity,design ability and the ability to integrate-with which one can devise, develop and systematize the technology required by contemporary society and times.

(Ⅰ) Teamwork : Acquisition of the ability to form a team, not only with one's peers in the same field of expertise, but also with engineers in other fields of study, and to execute tasks smoothly and as planned.

Objectives of the Department

Department of Engineering for Innovation

Department of engineering for innovation aims to develop human resources having a rich sense of humanity, an independent spirit, and a broad vision to create a safe and prosperous future by training various knowledge of the engineering field with practical education.

Objectives of the Courses

Electronics and Production Systems Engineering Course

This major course supplies the educational system in which the students can develop and evolve their practical ability in the wide and complex fields of the technological creation, based on the knowledge and skills they learned at the Departments of Mechanical Engineering, Electrical and Electronic Engineering, and Computer Science and Engineering.

Environmental Systems Engineering Course

This major course supplies the educational system in which the students can develop and evolve their practical ability in the wide and complex fields including materials and raw materials, biofunction and social infrastructure, based on the knowledge and skills they learned at the Department of Engineering and Science for Materials and the Department of Civil Engineering.

History

Rapid economic growth (Japanese economic miracle) and remarkable technological development in Japan during post-World War II era had led the need for trained technical experts. This leads to the establishment of new type of a higher education institution: National Institute of Technology (NIT) . A college of NIT admits students from junior high schools, and trains them following the curriculum of five years. The Tomakomai College was founded in 1964.

30 Dec. 1965	It was decided that there should be a national college of technology in Tomakomai.
1 Apr. 1964	Tomakomai National College of Technology with three departments: mechanical engineering, electrical engineering, and industrial chemistry was founded by Ministry of Education. Dr. MANAI Kouzo, professor at Hokkaido University took office as the first president.
24 Mar. 1965	The first part of school and dormitory building construction was completed.
15 Mar. 1966	The second part of the construction was completed. The construction of the gymnasium also was finished.
20 Nov.	The third part of the construction was completed.
26 Oct. 1967	The anniversary of the founding of the college celebrated.
1 Apr. 1969	The department of Civil Engineering was added.
20 Feb. 1970	The fourth part of the construction was completed.
1 Apr. 1971	Dr. FUKUTOMI Takaharu, professor at Hokkaido University took office as the second president.
15 Mar. 1973	The construction of the Library was completed.
1 Apr.	Dr. OHTSUKA Hiroshi, professor at Hokkaido University took office as the third president.
15 Oct. 1974	The 10th anniversary of the founding of the college celebrated.
25 Dec. 1978	The construction of the second gym was completed.
24 Mar. 1980	The construction of the Lecturer Building was completed.
1 Apr. 1981	Dr. HANZAWA Hiroshi, professor emeritus at Hokkaido University took office as the fourth president.
26 Sep. 1983	The construction of the Welfare Facilities was completed.
11 Mar. 1985	The construction of the fourth dormitory Building was completed.
1 Apr. 1987	The construction of the Media Center was completed.
1 Apr. 1988	Dr. ISHII Tadao, professor emeritus at Hokkaido University took office as the fifth president.
6 Oct. 1989	The 25th anniversary of the founding of the college celebrated.
1 Apr. 1990	The department of Computer Science and Engineering was added.
26 Mar. 1992	The construction of the Computer Science and Engineering Building was completed.
1 Apr.	The curriculum was drastically changed and five-day system came into operation.
1 Apr. 1993	Dr. SAKUMA Tetsurou, professor emeritus at Hokkaido University took office as the sixth president.
28 Apr.	The Association for Tomakomai National College of Technology was founded
1 Apr. 1994	The department of Industrial Chemistry was reorganized into the department of Science and Engineering for Materials.
1 Apr. 1995	The curriculum of the department of Civil Engineering was revised.
26 Feb. 1996	The construction of the Science and Engineering for Materials Laboratory was completed.
1 Apr. 2000	The department name of Electrical Engineering was changed into Electrical and Electronic Engineering.
10 Oct.	The construction of the Community Cooperative Research Center was completed.
1 Apr. 2001	Dr. ITOH Kiyohiko, professor emeritus at Hokkaido University took office as the seventh president.
25 Dec.	The construction of the women's dormitory Building was completed.
1 Apr. 2003	The Advanced Engineering Courses (Electronics and Production Systems Engineering Course, Environmental Systems Engineering Courese) were established.
1 Apr. 2004	Tomakomai College transferred under National Institute of Technology. Department of General Education was reorganized as Department of Human and Social Sciences and Department of Natural and Physical Sciences.
25 Sep. 2004	The 40th anniversary of the founding of the college celebrated.
11 Mar. 2005	The construction of the Advanced Engineering Courses Building was completed.
1 Apr. 2007	As part of the restructuring of the administrative section, three divisions (General Affairs Division, Finance Affairs Division, and Students Affairs Division) were reorganized as two divisions (Administration Affairs Division and Student Affairs Division) .
1 Apr. 2008	Dr. AKIYAMA Toshihiko, professor emeritus at Asahikawa College took office at the eighth president.
1 Feb. 2009	Support Center (for Engineering and Education) were established.
3 Apr.	Support Center (for Engineering and Education) Office was completed.
26 Mar. 2010	The seminer building was renovated.
26 Dec. 2011	The building of the department of science and engineering for materials was renovated.
25 Jan. 2013	The building of the department of civil engineering was renovated.
1 Apr.	Career education Center were sstablished, and Office was completed.
14 Mar. 2014	Administration building and the building of the department of electric and electronic engineering was renovated.
1 Apr.	Dr.KUROKAWA Kazuya,professor at Center for Advanced Research of Energy & Materials HOKKAIDO UNIVERSITY took office at the ninth president
10 Oct.	The 50th anniversary of the founding of the college celebrated.
31 Mar. 2016	The building of the department of mechanical engineering was renovated.
1 Apr.	All five departments had been recomposed to the Department of Engineering for Innovation.
12 Oct. 2018	Satellite Office (C-base) were established
1 Sep. 2019	Dr.TADANO Shigeru, president at National Institute of Technology (KOSEN) , Hakodate College at the tenth president
1 Oct. 2019	Dr.KOBAYASHI Yokinori, professor at Faculty of Engineering Hokkaido University at the eleventh president

Organization

Present Number of Staff

	As of Apr. 1, 2020
President	1
Professor	33
Associate Professor	31
Lecturer	0
Assistant Professor	10
Administrative Staff	43
Total	117

Executives

President	KOBAYASHI Yokinori
Vice-Presidential (Dean Of Administrative Affairs)	FURUSAKI Tsuyoshi
Vice-Presidential (Dean Of Academic Affairs)	MURAMOTO Mitsuru
Vice-Presidential (Dean Of Student Affairs)	NAKAJIMA Hiroki
Vice-Presidential (Dean Of Dormitory Affairs)	YAMAGIWA Akitoshi
Vice-Presidential (Director Of Advanced Eng.Course)	NIHASHI Sohey
Vice-Presidential (Dean Of Research Affairs)	NIHASHI Sohey
Director of Library and Information Center	DOI Shigeo
Director of Community Cooperative Research Center	SUDA Takanori
Director of Career Education Center	YAMASHITA Toru
Director of Support Center	SHITAMURA Mitsuhiro
Head of Division of Humanities and Social Sciences	MATSUDA Kanaho
Head of Division of Natural and Physical Sciences	NAKANO Wataru
Head of Division of Mechanical Engineering	MITOH Ayumi
Head of Division of Civil Engineering	HATTA Shigemi
Head of Division of Applied Chemistry and Biochemistry	HIRANO Hiroto
Head of Division of Electrical and Electronic Engineering	NASUNO Yutaka
Head of Division of Computer Science and Engineering	ABE Tsukasa
Chief of Student Counseling Room	MIKAWA Yoshinori
Director of Administration Bureau	YOKOMICHI Tsutomu
Director of Administrative Affairs Division	MATSUHASHI Kazuya
Director of Student Affairs Division	AIUCHI Seiya

Chronological List of Presidents

	Name	Tenure of Office
1st	MANAI Kouzou	1964 Apr.1 ～1971 Mar.31
2nd	FUKUTOMI Takaharu	1971 Apr.1 ～1973 Mar.31
3rd	OHTSUKA Hiroshi	1973 Apr.1 ～1981 Mar.31
4th	HANZAWA Hiroshi	1981 Apr.1 ～1988 Mar.31
5th	ISHII Tadao	1988 Apr.1 ～1993 Mar.31
6th	SAKUMA Tetsurou	1993 Apr.1 ～2001 Mar.31
7th	ITOH Kiyohiko	2001 Apr.1 ～2008 Mar.31
8th	AKIYAMA Toshihiko	2008 Apr.1 ～2014 Mar.31
9th	KUROKAWA Kazuya	2014 Apr.1 ～2019 Aug.31
10th	TADANO Shigeru	2019 Sep.1 ～2019 Sep.30
11th	KOBAYASHI Yokinori	2019 Oct.1 ～

Professors Emeritus

Former Position	Name	Presentation Date
Professor	HIRANUMA Mitsuyasu	1995 Apr.1
Professor	KIMURA Kikuya	1998 Apr.1
President	SAKUMA Tetsurou	2001 Apr.1
Professor	MURAI Kuniaki	2001 Apr.1
Professor	WATANABE Isao	2001 Apr.1
Professor	UENO Masashi	2002 Apr.1
Professor	TANAKA Yoshikatsu	2006 Apr.1
Professor	SASAMURA Yasuaki	2006 Apr.1
Professor	FUJIKI Shigeo	2007 Apr.1
Professor	SUGAWARA Michihiro	2007 Apr.1
President	ITOH Kiyohiko	2008 Apr.1
Professor	AKINO Takahide	2008 Apr.1
Professor	YOSHIDA Takaki	2009 Apr.1
Professor	SATO Yoshinori	2011 Apr.1
Professor	SAWADA Tomoyuki	2011 Apr.1
Professor	MATSUBARA Tomoo	2011 Apr.1
President	AKIYAMA Toshihiko	2014 Apr.1
Professor	FUJII Kiyoshi	2014 Apr.1
Professor	HASEGAWA Hirokazu	2016 Apr.1
Professor	URASHIMA Saburo	2017 Apr.1
Professor	SHIMIZU Yuichi	2018 Apr.1
Professor	YAMAGUCHI Kazumi	2018 Apr.1
Professor	UEKI Masami	2019 Apr.1
Professor	YOSHIMURA Hitoshi	2019 Apr.1
President	KUROKAWA Kazuya	2020 Apr.1

College Events

First Semester

Apr.1-6	Spring Vacation
Apr.7	Entrance Ceremony
Apr.8	Opening Ceremony, Guidance for Freshmen
Apr.9	First Semester begins
Apr.14	Orientation for 2nd Year Student
Apr.16-17	Orientation for Freshmen
Apr.20	Foundation Anniversary
May.1	Classroom Visitation
May.22	Advanced Engineering Courses Entrance Examination
Late May	Student General Assembly
Early Jun	Farewell party
Jun.4-5	First Semester Term-Mid Examination
Jun.12	Advanced Engineering Courses Entrance Examination
Jun.19	Spring Inter-Class Match
Jul.11-12	Athletic Meet of Hokkaido NIT
Jul.27-Sep.6	Summer Vacation
Aug.19-Sep.6	Athletic Meet of All-Japan NIT
Aug.22-23	Open Campus
Aug.31	4th Year Enrollment Examination
Sep.18-28	First Semester Term-End Examination

▲Entrance Ceremony

▲Spring Inter-Class Match

Second Semester

Sep.30	Second Semester begins
Oct.24-25	College Festival
Nov.2	Parent-Teacher Meeting
Nov.5-6	Factory Investigation Tour for 3th Year Student
Nov.10-13	Study Tour for 4th Year Student
Nov.26-27	Second Semester Term-Mid Examination
Dec.28-Jan.6	Winter Vacation
Jan.23	Entrance Examination
Feb.10-17	Second Semester Term-End Examination
Feb.19	Ending Ceremony
Feb.21	Entrance Examination
Mar.1-31	Year-end Vacation
Mar.19	Commencement Ceremony

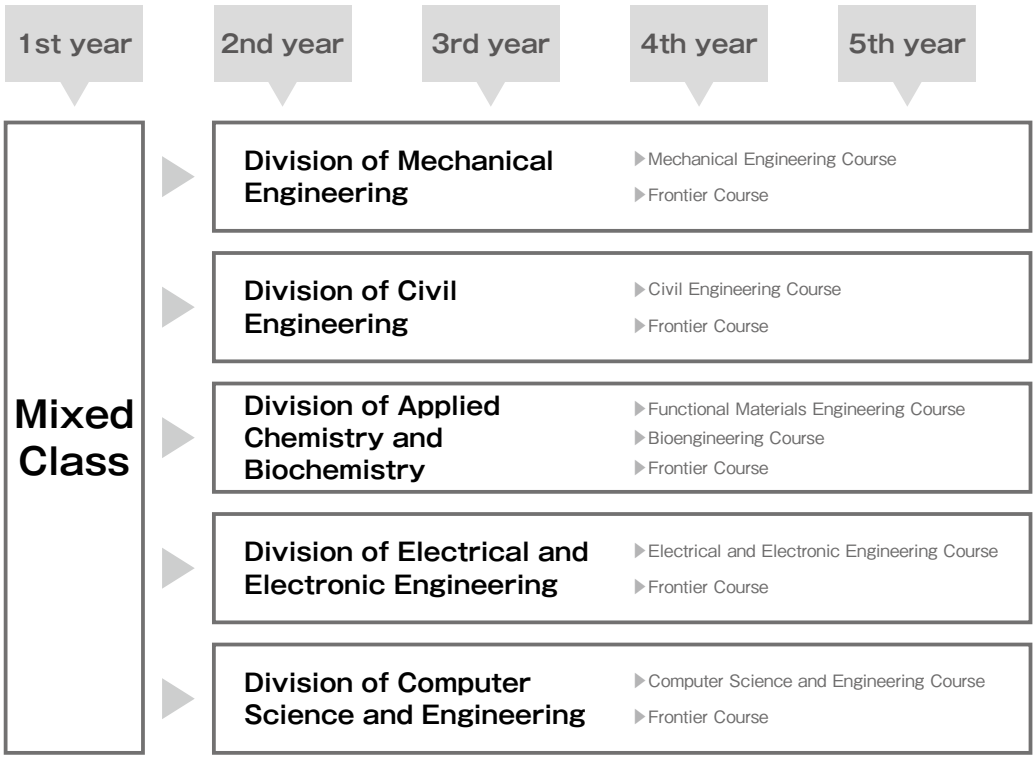
▲College Festival

Department of Engineering for Innovation

In current educational circles, the development of 21st-century skills,or generic skills, is an essential requirement. Additionally, there is a need to cultivate human resources that have an interdisciplinary, broad vision that includes a global and managerial perspective in local businesses and industries. To develop such human resources, the National Institute of Technology (NIT), Tomakomai College, integrated the five traditional engineering departments (mechanical engineering, electrical and electronic engineering, applied chemistry and biochemistry,computer science and engineering, civil engineering) into one department, the Department of Engineering for Innovation, in the 2016 fiscal year. This new department consists of five professional divisions and seven courses aiming to develop creativity in and broaden the perspectives of students. In addition to traditional professional education, the new department in Tomakomai College enhances 21st-century skills of students through systematic “Creativity Education” and “Interdisciplinary Education”.

Department of Engineering for Innovation

Admission quota:200



Division of Mechanical Engineering

Mechanical engineering makes the basis of all industrial technology, and its applicable field is very versatile. The wide field is covered until not only a machine but also a graduate's position reaches food, construction, information, a trading company, and government and municipal offices from the field of material, electricity, electron, and chemistry. In order to bring up the student who adapts himself and can play an active part in this division in any field from such a meaning in the future, it is educating for the purpose of supporting fundamental knowledge and application capability.

Division of Civil Engineering

The purpose of this divition is that students master the basic skill and knowledge for creating the infrastructure for living afely and comfortably with keeping environment. And the civil engineers must acquire broad knowledge for adopting improvement of technology in the future as well.

In the early stage, students learn Structural Mechanics, Hydraulics, Soil Mechanics, Surveying, Civil Engineering Materials etc. as basic subjects on civil engineering. Based on these subjects, students learn creating or planning urban and civil life.

Divison of Applied Chemistry and Biochemistry

"Chemistry" is keyword in the 21st century.

Our life process and many materials and energy that support our life, are produced from various chemical reactions. We think that the foundation of technology in the future will be material chemistry and biological chemistry.

In this division, students are instructed on related subjects and are educated to have flexible thinking skills and application abilities, in order to cope with the fusion and synthesis of this technology.

Division of Electrical and Electronic Engineering

To produce graduates who will attain careers and higher education that lead to leadership roles in academia, industry and government in the era of technology, the Division of Electrical and Electronic Engineering provides the course of studies for the fundamental and special subjects based on the curriculum of the fields of energy, electronics, and telecommunications. In addition, it also offers practical technological education such as various experiments and trainings and helps students develop problem-solving skills through graduation researches.

Division of Computer Science and Engineering

The purpose of this division is to nurture practical engineers of computer systems and other related technologies. The curriculum is largely composed from fundamentals of information technologies based on computer science, control engineering and computer communication.

The second grade subjects are electrical engineering and programming. The higher-grade subjects are computer science and more practical technologies.

Division of Humanities and Social Sciences and Division of Natural and Physical Sciences

The divisions organize the contents of the curriculum for students to acquire knowledge of liberal arts on the level of senior high school and university. The objectives of the liberal education are to think critically, to communicate effectively, to enhance skills and knowledge in math and science, and to have a proper balance between intelligence and physical strength.

Curriculum

General Education

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Japanese Ⅰ	3	3					
Japanese Ⅱ	3		3				
Japanese Ⅲ	2			2			※1
Japanese Language Ⅰ	2			2			※2
Japanese Language Ⅱ	2				2		※2
Geography	2	2					
History	2		2				
Ethics	2		2				
Politics and Economics	2			2			※1
Mathematics ⅠA	4	4					
Mathematics ⅠB	3	3					
Mathematics ⅡA	3		3				
Mathematics ⅡB	3		3				
Mathematics ⅢA	4			4			
Mathematics ⅢB	2			2			
Chemistry Ⅰ	2	2					
Chemistry Ⅱ	2		2				
Introduction to Physics	2	2					
Physics Ⅰ	2		2				
Physics Ⅱ	2			2			
Earth science and Biology	1	1					
Health	1	1					
Physical Education Ⅰ	2	2					
Physical Education Ⅱ	2		2				
Physical Education Ⅲ	2			2			
English ⅠA	3	3					
English ⅠB	2	2					
English ⅡA	3		3				
English ⅡB	2		2				
English ⅢA	3			3			
English ⅢB	2			2			
English ⅣC	4				4		
English ⅤC	4					4	
Minimum Credits Required	76	25	24	19	4	4	
Elective Subjects							
Music	1	1					※3
Art	1	1					※3
Calligraphy	1	1					※3
Introduction to Law	2			2			※4
Philosophy	2			2			※4
Economics	2			2			※4
Japanese History	2			2			※4
Sociology	2			2			※4
Second Foreign Language A	2			2			※4
Second Foreign Language B	2			2			※4
Special Credits Ⅰ	2			2			※4
Japanese Society and Culture	2			2			※5
English Conversation	2			2			※5
Special Lecture Course of English: Topic A	2			2			※5
Special Lecture Course of English: Topic B	2			2			※5
Japanese Communication	2			2			※5
Special Lecture on Mathematics	2			2			※5
Lecture Course in Modern Sciences	2			2			※5
Special Credits Ⅱ	2			2			※5
Establishment Credits	35	3	0	0	(32)	(32)	
Minimum Credits Required	5 or more	1	0	0	4 or more		
Total Credits Offered	115	28	24	21	(38)	(36)	
Minimum Credits Required	81 or more	26	24	19	12 or more		

※1 compulsory for domestic students
※2 compulsory for International students
※3 Chouse 1 subject and 1 credit
※4 Chouse 1 subject and 2 credits or more
※5 Chouse 1 subject and 2 credits or more

Division of Mechanical Engineering

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Creative Engineering Ⅰ	4	4					
Creative Engineering Ⅱ	2		2				
Creative Engineering Ⅲ	2			2			
Introduction to Information Technology	2	2					
Applied Mathematics Ⅰ	2				2		
Applied Mathematics Ⅱ	2				2		
Applied Physics Ⅰ	2				2		
Pre-Research Project	1				1		
Information Technology	1		1				
Programming	2				2		
Engineering Mechanics Ⅰ	1		1				
Engineering Mechanics Ⅱ	2			2			
Strength of Materials Ⅰ	2			2			
Strength of Materials Ⅱ	2				2		
Engineering Materials Ⅰ	1			1			
Engineering Materials Ⅱ	2				2		
Environmental Energy System	2				2		
Thermal Engineering Ⅰ	2				2		
Thermal Engineering Ⅱ	2					2	
Fluid Mechanics Ⅰ	2				2		
Fluid Mechanics Ⅱ	2					2	
Manufacturing Technology Ⅰ	1			1			
Manufacturing Technology Ⅱ	2				2		
Dynamics of Machinery	2				2		
Machine Design and Drawing Ⅰ	3		3				
Machine Design and Drawing Ⅱ	3			3			
Machine Design and Drawing Ⅲ	3				3		
Machine Design and Drawing Ⅳ	2					2	
Mechanical Engineering Laboratory Ⅰ	3				3		
Mechanical Engineering Laboratory Ⅱ	3					3	
Mechanical Engineering Practice Ⅰ	3		3				
Mechanical Engineering Practice Ⅱ	3			3			
Mechanical Engineering Course							
Control Engineering	2					2	
Production Engineering	2					2	
Graduation Research	8					8	
Frontier Course							
Business Ⅰ	2				2		
Business Ⅱ	2					2	
Business Ⅲ	2					2	
International Communication	2					2	
Graduation Research in Frontier Course	4					4	
Establishment Credits	92	6	10	14	31	31	
Minimum Credits Required of Mechanical Engineering Course	80	6	10	14	29	21	
Minimum Credits Required of Frontier Course	80	6	10	14	31	19	
Elective Subjects							
Introduction to Mechanical Engineering	2					2	※1
Introduction to Earth and Environmental Sciences	2					2	※1
Introduction to Biology & Microbiology	2					2	※1
Introduction to Electrical Engineering	2					2	※1
International Communication	2					2	※1
Outline of Medical Engineering	2					2	※2
Design and CAD	2					2	※2
Introduction to Energy	2					2	※2
Applied Mathematics Ⅲ	2					2	※2
Applied Mathematics Ⅳ	2					2	※2
Applied Physics Ⅱ	2					2	※2
Applied Physics Ⅲ	2					2	※2
Biomedical Engineering	2					2	※3
System Control Engineering	2					2	※3
Instrumentation Engineering	2					2	※3
Internship	1				1		※3
Special Credits in Mechanical Engineering	2					Within 2	※3
Establishment Credits	33	0	0	0	(27)	(32)	
Minimum Credits Required	6 or more	0	0	0	6 or more		
Total Credits Offered	125	6	10	14	(58)	(62)	
Minimum Credits Required	86 or more	6	10	14	56 or more		

※1 Mechanical Engineering Course : Choose 2 subjects and 4 credits or more
※2 Frontier Course : Choose 2 subjects and 4 credits or more
※3 Choose 1 subject and 2 credits or more

Division of Civil Engineering

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Creative Engineering Ⅰ	4	4					
Creative Engineering Ⅱ	2		2				
Creative Engineering Ⅲ	2			2			
Introduction to Information Technology	2	2					
Applied Mathematics Ⅰ	2				2		
Applied Mathematics Ⅱ	2				2		
Applied Physics Ⅰ	2				2		
Pre-Research Project	1				1		
Information Processing	1		1				
Introduction to Civil Engineering	1		1				
Civil Engineering Materials	1			1			
Surveying Ⅰ	2		2				
Surveying Ⅱ	2				2		
Structural Mechanics Ⅰ	2		2				
Structural Mechanics Ⅱ	2			2			
Structural Mechanics Ⅲ	2				2		
Hydraulics Ⅰ	2			2			
Hydraulics Ⅱ	2				2		
Geotechnical Engineering Ⅰ	2			2			
Geotechnical Engineering Ⅱ	2				2		
Reinforced Concrete Engineering Ⅰ	2				2		
Highway Engineering	2				2		
Urban Planning	2				2		
Infrastructure Planning	2					2	
Sanitary Engineering	2					2	
Practice on Surveying Ⅰ	1		1				
Practice on Surveying Ⅱ	2			2			
Civil Engineering Design & Drawing Ⅰ	1		1				
Civil Engineering Design & Drawing Ⅱ	1			1			
Civil Engineering Design & Drawing Ⅲ	1				1		
Civil Engineering Design & Drawing Ⅳ	1					1	
Civil Engineering Laboratory Ⅰ	2			2			
Civil Engineering Laboratory Ⅱ	3				3		
Infrastructure Engineering	1				1		
Environmental Engineering Ⅰ	1				1		
Civil Engineering Course							
Field Work Ⅰ	1				1		
Field Work Ⅱ	1					1	
Construction Management	2					2	
Graduation Research	8					8	
Frontier Course							
Business Ⅰ	2				2		
Business Ⅱ	2					2	
Business Ⅲ	2					2	
International Communication	2					2	
Graduation Research in Frontier Course	4					4	
Establishment Credits	86	6	10	14	30	26	
Minimum Credits Required of Civil Engineering Couse	74	6	10	14	28	16	
Minimum Credits Required of Frontier Course	74	6	10	14	29	15	

Elective Subjects							
Introduction to Mechanical Engineering	2					2	※1
Introduction to Earth and Environmental Sciences	2					2	
Introduction to Biology & Microbiology	2					2	
Introduction to Electrical Engineering	2					2	※4
International Communication	2					2	
Outline of Medical Engineering	2					2	※2
Design and CAD	2					2	
Introduction to Energy	2					2	
Applied Mathematics Ⅲ	2					2	
Applied Mathematics Ⅳ	2					2	
Applied Physics Ⅱ	2					2	
Applied Physics Ⅲ	2					2	
River & Water Resource Engineering	2					2	※3
Coastal and Port Engineering	2					2	
Bridge and seismic Engineering	2					2	
Reinforced Concrete Engineering Ⅱ	2					2	
Transportation and Traffic Engineering	2					2	
Landscape Engineering	2					2	
Environmental Engineering Ⅱ	2					2	
Internship	1				1		
Special Credits in Civil Engineering	1					1	
Establishment Credits	40	0	0	0	(26)	(39)	
Minimum Credits Required	12 more	0	0	0	12more		
Total Credits Offered	126	6	10	14	(56)	(65)	
Minimum Credits Required	86 more	6	10	14	56more		

※1 Civil Engineering Course : Choose 2 subjects and 4 credits or more
※2 Frontier Course : Choose 2 subjects and 4 credits or more
※3 Civil Engineering Course : Choose 4 subjects and 8 credits or more
※4 Frontier Course : Choose 6 subjects and 12 credits or more

Division of Applied Chemistry and Biochemistry

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Creative Engineering Ⅰ	4	4					
Creative Engineering Ⅱ	2		2				
Creative Engineering Ⅲ	2			2			
Introduction to Information Technology	2	2					
Applied Mathematics Ⅰ	2				2		
Applied Mathematics Ⅱ	2				2		
Applied Physics Ⅰ	2				2		
Pre-Research Project	1				1		
Analytical Chemistry Ⅰ	1		1				
Analytical Chemistry Ⅱ	1		1				
Analytical Chemistry Ⅲ	1			1			
Inorganic Chemistry Ⅰ	1		1				
Inorganic Chemistry Ⅱ	1			1			
Inorganic Chemistry Ⅲ	2				2		
Organic Chemistry Ⅰ	1		1				
Organic Chemistry Ⅱ	1			1			
Organic Chemistry Ⅲ	2				2		
Organic Chemistry Exercise	1					1	
Physical Chemistry Ⅰ	1			1			
Physical Chemistry Ⅱ	2				2		
Physical Chemistry Exercise	1					1	
Biology	1		1				
Biochemistry Ⅰ	1			1			
Biochemistry Ⅱ	2				2		
Molecular Biology	2				2		
Chemical Engineering Ⅰ	1			1			
Chemical Engineering Ⅱ	2				2		
Chemical Engineering Exercise	1					1	
Computer Science Ⅰ	1				1		
Computer Science Ⅱ	1					1	
Instrumental Analysis	2					2	
Polymer Chemistry	2					2	
Quality Control	2					2	
Chemistry Laboratory Ⅰ	3		3				
Chemistry Laboratory Ⅱ	6			6			
Functional Materials Engineering Course							
Science of Functional Materials Ⅰ	2				2		
Science of Functional Materials Ⅱ	2					2	
Applied Physical Chemistry	2					2	
Process Design	2					2	
Advanced Chemistry Laboratory	6				6		
Graduation Research	8					8	
Bioengineering Course							
Applied Microbiology	2				2		
Genetic Engineering	2					2	
Molecular Cell Biology	2					2	
Food Science	2					2	
Bioengineering Laboratory	6				6		
Graduation Research	8					8	
Frontier Course							
Science of Functional Materials Ⅰ	2				2		
Science of Functional Materials Ⅱ	2					2	
Advanced Chemistry Laboratory	6				6		
Business Ⅰ	2				2		
Business Ⅱ	2					2	
Business Ⅲ	2					2	
International Communication	2					2	
Graduation Research in Frontier Course	4					4	
Establishment Credits	126	6	10	14	46	50	
Minimum Credits Required of Functional Materials Engineering Course	82	6	10	14	28	24	
Minimum Credits Required of Bioengineering Course	82	6	10	14	28	24	
Minimum Credits Required of Frontier Course	82	6	10	14	30	22	

Elective Subjects							
Introduction to Mechanical Engineering	2					2	※1
Introduction to Earth and Environmental Sciences	2					2	
Introduction to Biology & Microbiology	2					2	
Introduction to Electrical Engineering	2					2	※3
International Communication	2					2	
Outline of Medical Engineering	2					2	※2
Design and CAD	2					2	
Introduction to Energy	2					2	
Applied Mathematics Ⅲ	2					2	
Applied Mathematics Ⅳ	2					2	
Applied Physics Ⅱ	2					2	
Applied Physics Ⅲ	2					2	
Internship	1				1		
Special Credits in Chemistry and Biochemistry	1					1	
Establishment Credits	26	0	0	0	(26)	(25)	
Minimum Credits Required	4 more	0	0	0	4 more		
Total Credits Offered	152	6	10	14	(72)	(75)	
Minimum Credits Required	86 more	6	10	14	56 more		

※1 Functional Materials Engineering Course and Bioengineering Course : Choose 2 subjects and 4 credits or more
※2 Frontier Course : Choose 2 subjects and 4 credits or more
※3 Choose 2 subjects and 4 credits or more

Division of Electrical and Electronic Engineering

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Creative Engineering Ⅰ	4	4					
Creative Engineering Ⅱ	2		2				
Creative Engineering Ⅲ	2			2			
Introduction to Information Technology	2	2					
Applied Mathematics Ⅰ	2				2		
Applied Mathematics Ⅱ	2				2		
Applied Physics Ⅰ	2				2		
Pre-Research Project	1				1		
Electromagnetics Ⅰ	2		2				
Electromagnetics Ⅱ	2			2			
Electric Circuits Ⅰ	2		2				
Electric Circuits Ⅱ	2			2			
Transmission Line Theory	2				2		
High Frequency Circuits	2				2		
Information Processing Exercise Ⅰ	1		1				
Information Processing Exercise Ⅱ	1			1			
Information Processing Exercise Ⅲ	1				1		
Electric and Electronics Measurement	2				2		
Electrical Machinery and Apparatus Ⅰ	2			2			
Electrical Machinery and Apparatus Ⅱ	2				2		
Electric Energy Conversion Engineering	2				2		
Electronic Devices	2			2			
Electronic Circuits Ⅰ	2				2		
Electronic Circuits Ⅱ	2				2		
Digital Circuits	2					2	
Control Engineering Ⅰ	2					2	
Electrical Communication Ⅰ	2				2		
Electrical and Electronic Creative Laboratory	3		3				
Electrical and Electronic Engineering Laboratory Ⅰ	3			3			
Electrical and Electronic Engineering Laboratory Ⅱ	3				3		
Electrical and Electronic Engineering Laboratory Ⅲ	2					2	
Seminars on Electrical and Electronic Engineering	1				1		
Electrical and Electronic Engineering							
Electrical and Electronic Engineering Materials	2					2	
System Engineering	2					2	
Graduation Research	8					8	
Frontier Course							
Business Ⅰ	2				2		
Business Ⅱ	2					2	
Business Ⅲ	2					2	
International Communication	2					2	
Graduation Research in Frontier Course	4					4	
Establishment Credits	88	6	10	14	30	28	
Minimum Credits Required of Electrical and Electronic Engineering	76	6	10	14	28	18	
Minimum Credits Required of Frontier Course	76	6	10	14	30	16	
Elective Subjects							
Introduction to Mechanical Engineering	2					2	※1
Introduction to Earth and Environmental Sciences	2					2	
Introduction to Biology & Microbiology	2					2	
Introduction to Electrical Engineering	2					2	
International Communication	2					2	
Outline of Medical Engineering	2					2	※2
Design and CAD	2					2	
Introduction to Energy	2					2	
Applied Mathematics Ⅲ	2					2	
Applied Mathematics Ⅳ	2					2	
Applied Physics Ⅱ	2					2	
Applied Physics Ⅲ	2					2	
Electric Power System Engineering	2					2	※3
Power Electronics	2					2	
Control Engineering Ⅱ	2					2	
Electromagnetic Wave Engineering	2					2	
Semiconductor Engineering	2					2	
Electrical Communication Ⅱ	2					2	
Signal Processing	2					2	
Internship	1				1		
Special Credits in Electrical and Electronic	1					1	
Establishment Credits	40	0	0	0	(26)	(39)	
Minimum Credits Required	10 more	0	0	0	10 more		
Total Credits Offered	128	6	10	14	(56)	(62)	
Minimum Credits Required	86 more	6	10	14	56 more		

※1 Electrical and Electronic Engineering Course : Choose 2 subjects and 4 credits or more
※2 Frontier Course : Choose 2 subjects and 4 credits or more
※3 Choose 3 subjects and 6 credits or more

Division of Computer Science and Engineering

	the number of credits	1st year	2nd year	3rd year	4th year	5th year	Note
Required Subjects							
Creative Engineering Ⅰ	4	4					
Creative Engineering Ⅱ	2		2				
Creative Engineering Ⅲ	2			2			
Introduction to Information Technology	2	2					
Applied Mathematics Ⅰ	2				2		
Applied Mathematics Ⅱ	2				2		
Applied Physics Ⅰ	2				2		
Pre-Research Project	1				1		
Circuit Theory Ⅰ	2			2			
Circuit Theory Ⅱ	2				2		
Electronic Engineering	1			1			
Logic Circuit Ⅰ	2		2				
Logic Circuit Ⅱ	1			1			
Programming Ⅰ	3		3				
Programming Ⅱ	2			2			※1
Basic Information Ⅰ	2			2			※2
System Software	2					2	
Operating System	2				2		
Software Engineering	2				2		
Computer Architecture and Organization	2			2			
Fundamentals of Hardware	2				2		
Mathematical Folundations for Computer Science	2				2		
Computer Graphics	2					2	
Database	2				2		
Digital Signal Processing	2					2	
Fundamentals of Embedded System	2					2	
Computer Communication	2				2		
Systems Engineering	2					2	
Seminar on Computer Science and Engineering	1				1		
Exercise of Software Design Ⅰ	1			1			※1
Basic Information Ⅱ	1			1			※2
Exercise of Software Design Ⅱ	1				1		
Exercise of Software Design Ⅲ	1				1		
Exercise of Information Security	1				1		
Computer Science and Engineering Laboratory Ⅰ	3		3				
Computer Science and Engineering Laboratory Ⅱ	3			3			
Computer Science and Engineering Laboratory Ⅲ	3				3		
Computer Science and Engineering Laboratory Ⅳ	2					2	
Computer Science and Engineering Course							
Exercise of Linear System	2					2	
Exercise of Real Time Operating System	1					1	
Exercise of Network Programming	1					1	
Graduation Research	8					8	
Frontier Course							
Business Ⅰ	2				2		
Business Ⅱ	2					2	
Business Ⅲ	2					2	
International Communication	2					2	
Graduation Research in Frontier Course	4					4	
Establishment Credits	97	6	10	17	30	34	
Minimum Credits Required of Computer Science and Engineering Course	82	6	10	14	28	24	
Minimum Credits Required of Frontier Course	82	6	10	14	30	22	
Elective Subjects							
Introduction to Mechanical Engineering	2				2		※3 ※5
Introduction to Earth and Environmental Sciences	2				2		
Introduction to Biology & Microbiology	2				2		
Introduction to Electrical Engineering	2				2		
International Communication	2				2		
Outline of Medical Engineering	2				2		※4
Design and CAD	2				2		
Introduction to Energy	2				2		
Applied Mathematics Ⅲ	2				2		
Applied Mathematics Ⅳ	2				2		
Applied Physics Ⅱ	2				2		
Applied Physics Ⅲ	2				2		
Internship	1				1		
Special Credits in Computer Science and Engineering	2					2	
Establishment Credits	27	0	0	0	(27)	(26)	
Minimum Credits Required	4 more	0	0	0	4 more		
Total Credits Offered	124	6	10	17	(57)	(60)	
Minimum Credits Required	86 more	6	10	14	56 more		

※1 compulsory for domestic students
※2 compulsory for International students
※3 Computer Science and Engineering Course : Choose 2 subjects and 4 credits or more
※4 Frontier Course : Choose 2 subjects and 4 credits or more
※5 Choose 2 subjects and 4 credits or more

Advanced Engineering Courses

Tomakomai College has two advanced engineering courses:

Electronics and Production Systems Engineering Course

Environmental Systems Engineering Course

which succeed the five-year technical college education courses in order to provide two more years of technical education. The advanced engineering courses have nurtured engineers with advanced knowledge and skills who not only have the ability to develop technology and solve problems but also contribute to the development of the industries themselves.

Students who complete these courses and satisfy the criteria established by the National Institution for Academic Degrees (NIAD) can apply to the Institution for a bachelor's degree and are treated as graduates. The graduates holding the bachelor's degree are qualified as candidates for graduate school courses.

In accordance with the criteria set by the Japan Accreditation Board for Engineering Education (JABEE), these advanced engineering courses are incorporated in the engineering education program, including the 4th and 5th year technical college education courses. This "Environmental and Production Systems Engineering Program" is evaluated as an internationally qualified program (based on JABEE standards).

Learning Educational Objectives of Advanced Engineering Courses

The learning objectives of both advanced courses are to achieve advanced knowledge and skills, building on the base of knowledge and skills acquired in the regular five-year technical college education, in order to work actively and creatively in solving difficult problems that may arise at any time in real situations, and in promoting research and development activities for upgrading the level of technology. Hence, students acquire

I Humanity, II Creativity and III Global Mind.

Electronics and Production Systems Engineering Course

This course is established to acquire research skills for electronics and production systems based on previous studies done at Dept. of Mechanical Engineering, Dept. of Electrical and Electronic Engineering, or Dept. of Computer Science and Engineering. The curriculum of the course is designed to help the students acquire — through lectures, seminars and laboratories — advanced knowledge and skills of a wide range of specialized subjects, Japanese Composition, Engineering Ethics, Fluid Dynamics, Life Science, Engineering of Quality System, all of which are fundamentally necessary for the development of competent engineers possessing technological creativity and professionalism. The course content is based on the knowledge and skills already acquired in those respective departments' regular five-year technical college education. The curriculum is also devised to facilitate students' acquisition of technological knowledge and skills in the areas where those three departments overlap. The object of these efforts as described above is to provide the best possible guidance in order to nurture competent engineers who are able to work actively and creatively at the forefront of research and development of electronic and production systems technology with practical applications in the real world.

Environmental Systems Engineering Course

This course is established to acquire research skills for environmental systems based on previous studies done at Dept. of Engineering and Science for Materials and Dept. of Civil Engineering. The curriculum of the course is designed to help the students acquire — through lectures, seminars and laboratories — advanced knowledge and skills in a wide range of specialized subjects in the fields including Raw Materials, Materials, Bio-organics and Social Infrastructure. The course content is based on the knowledge and skills already acquired in those respective departments' regular five-year technical college education. The curriculum is also devised to facilitate students' acquisition of technological knowledge and skills in the areas where those two departments overlap, and is aimed at promoting the harmonic co-existence of human beings and nature. The object of these efforts as described above is to provide the best possible guidance in order to nurture competent engineers who are able to work actively and creatively at the forefront of research and development of environmental systems technology with practical applications in the real world.

Curriculum

General Education

General Education		the number of credits	1st year	2nd year
Advanced English Ⅰ	R	2	2	
Advanced English Ⅱ	R	2	2	
Intercultural Communication	R	2	2	
Modern Japanese Economy	E	2		2
Language and Culture of China	E	2		2
Japanese Composition	E	2		2
Establishment Credits		12	6	6
Minimum Credits Required		8 or more	8 or more	

R : Required Subjects
E : Elective Subjects

Special Subject

Electronics and Production Systems Engineering Course

Special Common Subject		the number of credits	1st year	2nd year
Engineering Ethics	R	2	2	
Advanced Applied Mathematics Ⅰ	E	2	2	
Advanced Applied Mathematics Ⅱ	E	2	2	
Life Science	R	2	2	
Quantum Theory	R	2	2	
Statistical Physics	R	2	2	
Engineering of Quality System	R	2		2
Creative Engineering	R	2	2	
Engineering Design	R	2		2
Multimedia	R	2	2	
Preventive Disaster Engineering	R	2		2
Advanced Lectures of Environmental Engineering for Cold Region	R	2		2
Total Credits Offered		24	16	8
Minimum Credits Required		22 or more	22 or more	

Special Common Subject				
Advanced Engineering of Electronic Materials	R	2	2	
Mathematical Theory of Elasticity	R	2	2	
Advanced Solid Mechanics	E	2	2	
Fluid Dynamics	E	2	2	
Material Systems Engineering	E	2		2
Advanced Lecture on Energy Conversion	E	2		2
Applied Instrumentation Engineering	E	2	2	
Advanced Engineering for Electric Circuit	E	2	2	
Robotics	E	2		2
Coding Theory	E	2	2	
Internetworking	E	2		2
Information Engineering	E	2		2
Hardware System Design	E	2	2	
Sensor Electronics	E	2	2	
Intership of Electronics and Production systems Course	R	2	2	
Experiment	R	2	2	
Exercise	R	2		2
Thesis Work Ⅰ	R	6	6	
Thesis Work Ⅱ	R	8		8
Total Credits Offered	R	24	26	22
	E	24		
Minimum Credits Required		32 or more	32 or more	

Environmental Systems Engineering Course

Special Common Subject		the number of credits	1st year	2nd year
Engineering Ethics	R	2	2	
Advanced Applied Mathematics Ⅰ	E	2	2	
Advanced Applied Mathematics Ⅱ	E	2	2	
Life Science	R	2	2	
Quantum Theory	R	2	2	
Statistical Physics	R	2	2	
Engineering of Quality System	R	2		2
Creative Engineering	R	2	2	
Engineering Design	R	2		2
Multimedia	R	2	2	
Preventive Disaster Engineering	R	2		2
Advanced Lectures of Environmental Engineering for Cold Region	R	2		2
Total Credits Offered		24	16	8
Minimum Credits Required		22 or more	22 or more	

Special Subject				
Advanced Materials Science	E	2	2	
Concrete Engineering	E	2	2	
Organic Materials Engineering	E	2		2
Advanced Hydraulics	E	2		2
Advanced Solid Mechanics	E	2	2	
Mathmatical Theory of Elasticity	E	2	2	
Fluid Dynamics	E	2	2	
Urban Planning	E	2		2
Geotechnical Engineering	E	2	2	
Advanced Highway Engineering	E	2		2
Analytical Chemistry for Environmental Analysis	E	2	2	
Cellulose Technology	E	2	2	
Biofunctional Engineering	E	2	2	
Process Engineering	E	2		2
Intership of Enviromental systems Course	R	2	2	
Experiment	R	2	2	
Exercise	R	2		2
Thesis Work Ⅰ	R	6	6	
Thesis Work Ⅱ	R	8		8
Total Credits Offered	R	20	28	20
	E	28		
Minimum Credits Required		32 or more	32 or more	

Faculty Member

Position	In alphabetical order	Division	The main subjects in its duty	The main research themes
Prof. Dr.Eng.	ABE Tsukasa	Computer Science and Engineering	Fundamentals of Embeddded System,Computer Communication,Exercise of Network Programming, Exercise of Real Time Operating System	Computer Communication, Embedded Systems
Assoc Prof. Dr.Eng.	AKATSUKA Motoki	Electrical and Electronic Enginnering	Electric Circuits Ⅱ, Electric Power System Engineering	Power System, Renewable Energy
Assoc Prof. Dr.Eng.	ARIMA Takashi	Natural and Physical Science	Mathematics, Physics	Nonequilibrium thermodynamics, Theoretical fluid dynamics
Assoc Prof. Dr.Eng.	ASAMI Hiroki	Mechanical Engineering	Engineering Mechanics Ⅰ, Creative Engineering Ⅱ・Ⅲ, Machine Design and DrawingⅣ, Material System Engineering	Study of hard ceramics material
Assoc Prof. Dr.Eng.	DOI Shigeo	Computer Science and Engineering	Systems Engineering, Exercise of Linear System, Exercise of Network Programming, Computer Science and Engineering Laboratory Ⅱ・Ⅳ, Information Engineering, Engineering Ethics	Swarm Intelligence, Information Systems, Information Security
Prof.	FUJISHIMA Katsuhiro	Natural and Physical Science	Mathematics	Mathematics Education
Assist Prof. Dr.Env.Sci.	FUJITA Sayaka	Applied Chemistry and Biochemistry	Inorganic Chemistry Ⅰ, Biochemistry Ⅱ	Effective Utilization of bioresources
Prof. Dr.Eng.	FURUSAKI Tsuyoshi	Applied Chemistry and Biochemistry	Inorganic Chemistry Ⅱ・Ⅲ, Functional Materials Ⅱ	Preparation and properties of functional ceramics
Assist Prof. Dr.Info Sci	HARADA Keiwu	Computer Science and Engineering	Creative Engineering Ⅰ, Programming Ⅱ, Exercise of Software Design Ⅰ・Ⅱ, Computer Science and Engineering LaboratoryⅢ・Ⅳ	Complex Networks
Prof. Dr.Eng.	HASHIMOTO Hisaho	Applied Chemistry and Biochemistry	Organic chemistry Ⅱ・Ⅲ, Polymer Chemistry	The molecular design and synthesis of polymer materials which have molecular recognition ability
Prof. Dr.Eng.	HATTA Shigemi	Civil Engineering	Hydraulics Ⅰ・Ⅱ, Information Processing	Hydrological Studies in Tarumae volcanic Area
Prof.	HIGASHI Toshifumi	Humanities and Social Sciences	English	Semantics and Pragmatics of English
Prof. Dr.Eng.	HIRANO Hiroto	Applied Chemistry and Biochemistry	Chemical Engineering Ⅰ・Ⅱ, Chemical Reaction Engineering	Development of high efficient separation unit by use of inclined continuous thickener
Prof. Dr.Eng.	HORI Katsuhiro	Electrical and Electronic Enginnering	Control Engineering Ⅰ, Robotics	Control of autonomous mobile robot
Assoc Prof.	HORI Toyohiko	Humanities and Social Sciences	English	Studies on the theory and Practice of the second language acquisition
Assoc Prof. Dr.Eng.	IKEDA Shin-ichi	Mechanical Engineering	Manufacturing Technology, Machine Design and Drawing Ⅰ, Creative EngineeringⅡ	Cutting of titanium alloy
Prof. Dr.Eng.	INAGAWA Kiyoshi	Computer Science and Engineering	Electronic Engineering, Fundamentals of Hardware, Circuit Theory Ⅰ, Creative Engineering Ⅱ, Circuit Theory Ⅱ, Computer Science and Engineering Laboratory Ⅰ・Ⅱ・Ⅲ	Hardware Design, SAW Device Design
Assoc Prof.	Ishikawa Ayumi	Humanities and Social Sciences	English, International Communication, Intercultural Communication	American Literature
Assoc Prof. Dr.Eng.	ITO Yoshihiro	Electrical and Electronic Enginnering	Electric and Electronic Measurement, Electromanegitic Wave Engineering, Optoelectronics	High speed camera
Prof. Dr.Agr.	IWANAMI Shunsuke	Applied Chemistry and Biochemistry	Technology of Applied Microbiology, Fermentation and zymurgy	Research on the food processing and environmental purification of biological function
Assoc Prof. Dr.Eng.	KASHIMURA Nao	Applied Chemistry and Biochemistry	Analytical Chemistry, Organic Chemistry. Physical Chemistry	Development of up-grading process of organic resources
Assoc Prof. D.Litt	KATAYAMA Fuyuki	Humanities and Social Sciences	Japanese	The study of classical Japanese literature
Prof. Dr.Eng.	KATO Hatsuyoshi	Natural and Physical Science	Introduction to Physics, Physics, Statistical Physics	Waves in layered structures
Prof. Dr.Eng.	KIKUTA Kazushige	Mechanical Engineering	Engineering Thermodynamics, Thermal Science and Engineering, Machine Design and Drawing Ⅱ, Advanced Lecture on Environmental Engineering for Cold Region	Thermal energy conversion
Assoc Prof. Dr.Eng.	KONDO Takashi	Civil Engineering	Civil Engineering Materials,Structural mechanics Ⅰ, Practice on Surveying Ⅰ, Highway Engineering	Study on pavement for cold region

Position	In alphabetical order	Division	The main subjects in its duty	The main research themes
Assoc Prof. Dr.Sci	KONNO Kohkichi	Natural and Physical Science	Mathematics	Gravity theory, Astrophysics
Prof. Ph. D. Sci.	KONO Hiroyuki	Applied Chemistry and Biochemistry	Physical Chemistry Ⅰ·Ⅱ, Physical Chemistry Exercise, Creative Engineering Ⅲ, Cellulose Technology	Synthesis and Application of functioal polysaccharides
Assoc Prof. Dr.Eng.	KOYABU Eitaro	Mechanical Engineering	Fluid Mechanics Ⅰ, Computational Mechanics, Creative Engineering Ⅰ·Ⅱ, Machine Design and Drawing Ⅴ	Analysis of flow over a turbine blade surface and the high-efficiency of fluid machinery
Assoc Prof. Dr.Eng.	KUDO Akihiro	Electrical and Electronic Enginnering	Electronic Circuit Ⅰ, Signal Processing, Creative Engineering Ⅰ, Mathematics	Binaural sound synthesis
Prof. P.E.jp.	KURIYAMA Masaki	Civil Engineering	Environmental Engineering, Sanitary Engineering, Construction Management	Reduction & Recycle of sludge
Prof.	MATSUDA Kanaho	Humanities and Social Sciences	English	American Literature
Assoc Prof. Dr.Eng.	MATSUO Yuko	Civil Engineering	Structual Mechanics, Bridge and Seismic Engineering, Coastal and Port Engineering	Maintenance of Structures
Prof. Dr.Info Sci	MIKAMI Tsuyoshi	Computer Science and Engineering	Creative Engineering Ⅱ·Ⅲ, Computer Architecture and Organization, Computer Science and Engineering Laboratory Ⅱ·Ⅳ, Digital Signal Processing	Biosignal Analysis, Pattern Recognition
Prof.	MIKAWA Yoshinori	Computer Science and Engineering	Introduction to Information Technology, Seminar on Computer Science and Engineering	Information Education, Database Systems
Prof. Dr.Eng.	MITOH Ayumi	Mechanical Engineering	Fluid Mechanic Ⅱ, Instrumentation Engineering, Engineering Mechanics Ⅱ, Fluid Dynamics	Artificial organ
Prof. Dr.Eng.	MURAMOTO Mitsuru	Natural and Physical Science	Mathematics, Creative Engineering Ⅰ, Hardware System Design, Engineerring Design, Electromanegitic Wave Engineering	Electromagnetic Field Analysis, Science Education
Assist Prof.	NAGAO Masanori	Applied Chemistry and Biochemistry	Chemistry Laboratory Ⅰ·Ⅱ	Synthesis of functional metal oxides for application as a heterogeneous catalyst
Prof. Dr.Sci.	NAGASAWA Tomoaki	Natural and Physical Science	Applied physics, Physics	Elementary particle, Quantum mechanics
Prof.	NAKAJIMA Hiroki	Natural and Physical Science	Health, Physical Education	Studies on ice hockey
Prof. Dr.Eng.	NAKAMURA Tsuneo	Computer Science and Engineering	Programming Ⅰ, Computer Graphics, Exercise of Software Design Ⅲ, Computer Science and Engineering Laboratory Ⅰ·Ⅲ·Ⅳ, Multimedia Engineering	Media Information Processing
Prof. Dr.Eng.	NAKAMURA Tsutomu	Civil Engineering	Geotechnical Engineering Ⅰ, Surveying Ⅰ, Civil Engineering Design and Drawing Ⅱ, Practice on Surveying Ⅰ	Properties of in-soil geogrid deformation
Assoc Prof. Dr.Info Sci	NAKAMURA Yoshihiko	Computer Science and Engineering	Creative Engineering Ⅰ·Ⅱ·Ⅲ, Software Engineering, Database, Computer Science and Engineering Laboratory Ⅰ·Ⅱ·Ⅲ	Medical Image Processing
Prof. Dr.Eng.	NAKANO Wataru	Natural and Physical Science	Applied mathematics, Mathematics	Nonlinear waves in stratified fluid
Prof. Dr.Eng. Professional	NASUNO Yutaka	Electrical and Electronic Enginnering	Electrical Communication Ⅱ ,Advanced Engineering for Electric Circuit, Creative Engineering Ⅱ, Information Processing Exercise Ⅲ, Electrical and Electronic Creative Laboratory	Telecommunication traffic
Prof. Dr. Enviromental Earth Science.	NIHASHI Sohey	Mechanical Engineering	Environmental Energy system, Numerical Calculation, Programing,Advanced Lecture on Energy Conversion, Earth environmental science	Ice-ocean system, Earth environment and energy
Assoc Prof.	NOGUCHI Tsutomu	Mechanical Engineering	Strength of Materials	Prevention of slip and falls during a walk on icy road
Assoc Prof. Dr.Eng.	OHASHI Satoshi	Computer Science and Engineering	Creative Engineering Ⅰ, System Software, Operating System, Computer Science and Engineering Laboratory Ⅰ·Ⅱ·Ⅲ	Medical Image Processing, Biological Analysis, Welfare Engineering
Assoc Prof. Dr.Eng.	OHNISHI Takaomi	Computer Science and Engineering	Logic Circuit Ⅰ·Ⅱ, Seminar on Computer Science and Engineering, Computer Science and Engineering Laboratory Ⅰ·Ⅲ, Creative Engineering	Instructology and Promoting Formal Method
Assoc Prof.	OKUDA Yayoi	Applied Chemistry and Biochemistry	Analytical Chemistry Ⅱ·Ⅲ	Chemical characterization of cements and concretes
Assist Prof. Dr.Eng	OKUYAMA Yui	Electrical and Electronic Enginnering	Electromagnetics Ⅰ, Medical and Welfare Advanced and Applied Technology, Creative Engineering Ⅰ	Research on discharge plasmas
Assoc Prof.	OSHIMA Kazuhiro	Applied Chemistry and Biochemistry	Instrumental analysis, Chemistry, Creative Engineering Ⅰ, Safely Engineering of chemical Materials	Synthesis of new polysaccharide derivatives via "Click Chemistry"
Assoc Prof.	SAKASITA Tosihiko	Humanities and Social Sciences	History	Studies on the temples in villages at the end of the middle ages in Japan

Position	In alphabetical order	Division	The main subjects in its duty	The main research themes
Assoc Prof. Dr.Eng.	SASAKI Koji	Electrical and Electronic Enginnering	Electromagnetics Ⅱ, Digital Circuits, Introduction to Electrical Engineering, Information Processing Exercise Ⅱ	Speech Signal Processing
Assoc Prof.	SASAKI Sai	Humanities and Social Sciences	Politics and Economics, Law,Japanese Society and Culture	International Family Law, International Property Law
Assoc Prof.	SATO Nanae	Humanities and Social Sciences	English, Intercultural Communication	EIL (English as an International Language)
Assoc Prof. Dr.Eng.	SATO Shin	Applied Chemistry and Biochemistry	Chemical Engineering, Quality Control	Development of new Taylor vortex mixer
Assoc Prof. Dr.Eng.	SAZAWA Masaki	Electrical and Electronic Enginnering	Electrical Machinery and Apparatus Ⅰ, Transmission Line Theory, Electrical and Electronic Creative Laboratory	High speed positroning control Multi degrees of freedom control
Prof. Dr.Eng.	SHITAMURA Mitsuhiro	Civil Engineering	Urban and Regional Planning, Infrastructure Planning, Transportation and Traffic Engineering, Landscape Engineering	Characteristics of journey-to-work travel behavior
Prof. Dr.Eng.	SUDA Takanori	Mechanical Engineering	Engineer's Ehics, Creative Engineering Ⅰ, Business Ⅰ·Ⅱ·Ⅲ, Introduction to Mechanical Engineering	Management Engineering, Energy Materal
Assoc Prof.	TADA Mitsuhiro	Humanities and Social Sciences	Ethics, Philosophy, Engineer's Ehics, Politics and Economics	Ethics of Schopenhauer, Bioethics
Prof.	TADENUMA Masami	Humanities and Social Sciences	Japanese	The study of modern Japanese literature
Assoc Prof.	TAGA Ken	Natural and Physical Science	Health, Physical Education	Sports motion analysis, Sports coaching
Prof. Dr.Sci	TAKAHASHI Rohta	Natural and Physical Science	Applied mathematics, Mathematics	Astrophysics, Astronomy
Assoc Prof. Dr.Eng.	TAKAZAWA Kohji	Mechanical Engineering	Engineering Materials Ⅰ·Ⅱ, Machine Design and Drawing Ⅰ, Information Technology, Creative Engineering Ⅰ	Welding of dissimilar materials,Powder metallurgy
Assist Prof.	TANIGUCHI Yoko	Civil Engineering	Practice on Surving Ⅰ·Ⅱ, Information Processing , Civil Engineering Design and Drawing Ⅱ, River and Water Resource Engineering	Estimating the amount of water resources for future climate change
Prof. Dr.Eng.	TOMA Eiji	Mechanical Engineering	Production Engineering, Engineering Quality System, Physical Ⅰ, Machine Design and Drawing Ⅱ	Optimization study on design and development by "Taguchi method"
Assist Prof. Dr.Info Sci	TSUCHIYA Yoshio	Mechanical Engineering	System Control Engineering, Creative Enginnering Ⅲ	Human sensing, Robotics
Prof. Dr.Eng.	UEDA Shigeta	Electrical and Electronic Enginnering	Electric Circuits Ⅰ, Electrical Machinery and Apparatus Ⅱ	Motor drive contorol, wind and PV power generation
Assoc Prof. Dr.Sci. & Eng.	UTSUNO Kuniharu	Applied Chemistry and Biochemistry	Biochemistry, Molecular Biology	The study of DNA higher order structure
Prof. Dr.Eng.	YAMADA Akihiro	Electrical and Electronic Enginnering	Electronic Device,Electrical and Electronic Engineering Materials, Advanced Engineering of Electronic Materials	Electric and magnetic properties of electrodeposited thin films
Prof.	YAMAGIWA Akitoshi	Humanities and Social Sciences	Japanese, Chinese	New Confucianism on the Song dynasty
Prof. Dr.Eng	YAMASHITA Toru	Natural and Physical Science	Physics, English	Superconducting materials, Electronics materials
Prof. Dr.Eng.	YOSHIMURA Hitoshi	Computer Science and Engineering	Creative Engineering Ⅱ, Exercise of Linear System, Computer Science and Engineering Laboratory Ⅳ	Embedded Systems, Robotics
Assoc Prof. Dr.Eng.	WATANABE Akio	Civil Engineering	Surveying Ⅰ, Civil Engineering Laboratory Ⅰ·Ⅱ, Reinforced Concrete Ⅰ・Ⅱ	Material Science

Equipments for main experiment and practical training

Division of Mechanical Engineering

- 3D cad Design Software Solid Works
- 3D Printer (STRATASYS Dimension Elite)
- Precision material-testing machine
- Universal material-testing machine (Hydranlic type)
- High speed camera
- Hydraulic experiment equipment
- Small channeling-back formula wind tunnel experiment equipment
- Centrifugal pump module
- Laser process machines
- CNC lathe
- 5-axis machining center
- Machining center
- Wire cut electrical discharge machining
- NC Milling machine
- FA control learning system
- Low-temperature wind tunnel experiment equipment (Community cooperative research center installation.)
- Evaluation system for fuel cell
- Spark plasma sintering machine
- Evaluation house for the energy system


▲3D cad design software


▲3D Printer


▲5-axis machining center


▲FA control learning system

Division of Civil Engineering

- Hydraulics experimental system
- Dynamic loading apparatus
- Independent stress control testing apparatus
- Multipoint strain digital measurement system
- Universal testing machine, Compression & bending testing machine
- Shaking table apparatus
- Triaxial compression apparatus
- Wave flume with absorbing-type wave generator
- Measurement system of flow velocity (Laser-doppler velocimeter, Total station)
- Precision thermostatic oven
- Gyratory compactor
- Asphalt pavement analyzer
- Air supply equipment (ESPEC ASE-200)
- Electric Muffle Furnaue
- Center cross mixing
- Concrete specimen grinding machine
- Bench saw


▲Practice on Surveying


▲Civil Engineering Materials


▲Hydraulics experimental


▲Compressive strength test

Division of Applied Chemistry and Biochemistry

Laboratory Equipment and Research Facility

- Nuclear Magnetic Resonance Spectrometer
- ICP-Mass Spectrometer
- Atomic Absorption Spectrometer
- UV-VIS-NIR Spectrophotometer
- X-ray Diffractometer
- Scanning Electron Microscope
- Energy Dispersive X-ray Spectrometer
- Energy Dispersive X-ray Fluorescence Spectrometer
- Thermal Analysis Instrument
- Surface Area and Porosity Analyzer
- Dynamic Viscoelasticity Measuring Device
- Universal Testing Instrument
- Confocal Laser Scanning Micrometer
- Vacuum Freeze Drying Equipment

▲Nuclear Magnetic Resonance Spectrometer

▲ICP-Mass Spectrometer

▲Surface Area and Porosity Analyzer

▲Clean Bench

Division of Electrical and Electronic Enginnering

- Experimental Equipment for Electromechanical System & Power Electronics
- Experimental Equipment for Power Semiconductor
- Experimental Equipment for Wind & Photovoltaic Power Generation
- The power Transmission System Simulator
- Experimental Equipment for Robot controller system
- High-deposition rate equipment and film thickness gauge monitor
- High Voltage Testing Generator Equipment
- High Vacuum Drift Tube Chamber Equipment
- Vacuum Coater Equipment
- High frequency magnetron sputtering system
- Vibrating Sample Magnetometer (VSM)
- Clean Bench
- Experiment Equipment for Parallel Computing

▲Experimental Equipment for Electromechanical Systems & Power Electronics

▲The power Transmission Systems Simulator

▲High frequency magnetron sputtering systems

▲Experimental Equipment for Robot controller system

Division of Computer Science and Engineering

- Windows Servers
- PC-UNIX Servers
- Personal Computers
- Software for Computer Engineering Laboratory
- Arduino Leonard
- Raspberry Pi
- LEGO Mindstorms EV3
- RX62N Microcomputer Boards
- Programmable Logic Devices

▲PC-UNIX Severs

▲LEGO MINDSTORMS EV3

▲Technology Education Computer Laboratory

Guide of facilities

Library and Information Center

Library and Information Center consists of two section, Library section (Library and Audio-Visual Room) and Information Processing section.

Library

Library has 126 thousand Japanese and foreign books and 1.3 thousand kinds of art and scientific journals.

<Books> 2020.4.1

Classification	General	Philosophy	History	SocialScience	Natural Science	Technology	Industry	Art	Language	Literature	TOTAL
Japanese	7,624	5,075	6,127	10,304	24,066	35,100	1,204	3,165	4,724	16,341	113,730
Foreign	259	416	131	205	5,240	3,061	129	88	1,966	861	12,356
TOTAL	7,883	5,491	6,258	10,509	29,306	38,161	1,333	3,253	6,690	17,202	126,086

<Periodicals>

Japanese	1,009	Foreign	311	TOTAL	1,320

Library Open to the Public

Library is available for the purpose of learning, research and study.
Everybody can use it by showing your identification to the staff.
Open time : Monday to Friday 8 : 30 ～20 : 00
Saturday 8 : 30 ～17 : 00 (Open during long vacations 8 : 30 ～17 : 00 Closed on Saturday)

Audio-Visual Room

The Audio-Visual Room has a large screen, a projector, a speaker, a piano and CD/LD/DVD devices and 47 computers.

Information Processing Section

The infomation processing section is inaugurated, as an institute to contribute for use in information processing education and in educational research of the faculty. And it has played the role of practical use and management of campus network system and educational electronic computer system.

Educational Electronic Computer System

The educational electronic computer system consists of 150 computers, using Windows as operating system, which are placed in CAI room, practice room and terminal room. They are based on high-performance educational servers and file serveres for client PC. And the internet can be utilized in the practice room, and terminal room.

Open time : Monday to Friday 8 : 30 ～20 : 00
Saturday 8 : 30 ～17 : 00 (Open during long vacations 8 : 30 ～17 : 00 Closed on Saturday)

Campus Network System

Campus network system consists of client PC in the headquarters and teachers' the room connected to campus facilities by a Layer3 Switch. Connected to Science Information Network (SINET) via exclusive circuits, it widely enables domestic and international exchange of information via E-mail and the internet.

Career Education Center

Since 2013, the Career Education Center has been established for the purpose of supporting students who try to design their career direction after graduation and preparing to achieve their career goal. In addition to current job hunting and educational advancement support, it also conducts more organized and systematic career education from lower grades in Tomakomai College.

The Center serves the followings

- Daily counseling for career design
- Fostering of students' career awareness
- Planning and conducting career education programs
- Supporting students' search for employment and higher education availability

Community Cooperative Research Center

The Community Cooperative Research Center (CCRC) was established in order to enrich the research activity and the lifelong learning environment in the close cooperation between our college and the local industry, and to support the engineering education.

CCRC is equipped with various experimental devices. With this equipment, CCRC conducts cooperative research, technology development, and material testing/analysis with companies and institutions.

CCRC contributes to local communities through visiting elementary and junior high schools to give science demonstrations. Public lectures and scientific experiment events have also been held.

Collaboration

Collaborative research

We carry out this research with staffs or financial aid from the private enterprises.

Requested research

We carry out this research at the request of private enterprises.

Requested material study

We carry out this study at the request of private enterprises by utilizing the experimental devices in this center.

Consultation for the development of technology

The Community Cooperative Research Center (CCRC) deals with the requests of research from the local industrial world, and also answer questions about collaborative research, accepted research, accepted material study, and external financial aid.

Extension courses

We offer extension courses for elementary and junior high school students in and around Tomakomai City.

▲Extension courses

▲Extension courses

▲Extension courses

Technical Education Support Center

Technical Education Support Center is in charge of various technical supports for students' experiment and training as well as faculty research. It also conducts extension lectures and visiting lessons as regional cooperation activities. Technicians in the center actively participate in technical training seminars and improve their own skills through such staff development.

▲Welding

Technical education support

Experiment / Practice
Research support

Facility management

Library & Information Center
Machine Practice Workshop
Laboratory equipment in each department

Regional cooperation

Extension lectures
・Let's make comma-shaped gem !

Science fair for kids
・Let's make paper-based LED light !

Visiting lessons
・Let's make super-bouncy ball !

▲Lathe manufacturing

▲Let's make paper-based LED light !

▲Let's make super-bouncy ball !

▲Let's make comma-shaped gem !

Welfare Facilities

Houshou Hall

Houshou Hall was established for the purpose of enhancing the welfare of students, teachers and staff, and enriching the students' extracurricular activities.


▲Welfare Facilities (Houshou Hall)


▲Infirmary


▲Infirmary


▲Cafeteria


▲Cafeteria


▲Shop

Dormitories

Tomakomai College has two dormitories named Somei-Ryo (for male students) and Fuka-Ryo (for female students) .


▲Somei-Ryo


▲Fuka-Ryo


▲Private room

Number of Domitory Residents

As of April 3,2020

	Mechanical Engineering / class1			Civil Engineering / class2			Applied Chemistry and Biochemistry / class3			Electrical and Electronic Engineering / class4			Computer Science and Engineering / class5			Total		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1st year	19	15	4	17	14	3	17	14	3	16	14	2	15	11	4	84	68	16
2nd year	16	14	2	17	14	3	17	13	4	8	8	0	10	8	2	68	57	11
3rd year	18	17	1	① 24	19	① 5	11	10	1	① 17	① 15	2	9	7	2	② 79	① 68	① 11
4th year	11	10	1	① 9	① 6	3	① 9	① 6	3	12	12	0	① 9	① 8	1	③ 50	③ 42	8
5th year	14	13	1	① 14	① 12	2	① 18	12	① 6	6	5	1	① 10	① 8	2	③ 62	② 50	① 12
Total	78	69	9	③ 81	② 65	① 16	② 72	① 55	① 17	① 59	① 54	5	② 53	② 42	11	⑧ 343	⑥ 285	② 58

○ : Foreign Student

International Exchange

International Partner Institutions (Inter-University Exchange Agreement) (Data as of April1,2020)

Country/Region	Counterpart	Concluded
New Zealand	Eastern Institute of Technology,Hawke'Bay	2013.4.16
China	Technological and Higher Education Institute of HongKong	2013.12.18
Mongolia	Institute of Engineering and Technology	2015.8.31
Thailand	Kasetsart University	2017.12.14
Mongolia	Mongolian National Association of Colleges of Technology	2019.10.7

Number of Faculty Members Sent Abroad

F Y	Number
2019	16
2018	32
2017	27
2016	21
2015	13

Number of Visiting Foreign Researchers

F Y	Number
2019	6
2018	35
2017	8
2016	0
2015	30

Number of Outgoing Exchange Students

F Y	Number
2019	20
2018	26
2017	22
2016	18
2015	1

Number of Incoming Students from Partner Institutions

F Y	Number
2019	20
2018	48
2017	68
2016	0
2015	

Students

Present Number of Students

As of April 1, 2020

Department	Admission Capacity	1st year	Division	2nd year	3rd year	4th year	5th year	Total
Engineering for Innovattion	200	Class 1 44 (36,8)	Mechanical Engineering	43 (37,6)	43 (39,4)	42 (39,3)	43 (36,7)	983 (797,186) ⑧
		Class 2 43 (36,7)	Civil Engineering	43 (33,10)	44 (34,10) ①	38 (27,11) ①	43 (35,8) ①	
		Class 3 43 (36,7)	Applied Chemistry and Biochemistry	39 (22,17)	37 (26,11)	30 (21,9) ①	38 (24,14) ①	
		Class 4 43 (36,7)	Electrical and Electronic Engineering	38 (37,1)	35 (31,4) ①	42 (35,7)	30 (27,3)	
		Class 5 43 (36,7)	Computer Science and Engineering	40 (33,7)	33 (27,6)	32 (26,6) ①	34 (28,6) ①	

Advanced Engineering Courses

Courses	1st year	2nd year	Total
Electronics and Production Systems Engineering Course	9 (9,0)	13 (13,0)	22 (22,0)
Environmental System Engineering Course	6 (4,2)	13 (10,3)	19 (14,5)
Total	15 (13,2)	26 (23,3)	41 (36,5)

※ (male, female), ○ : Foreign Student

Students Home Background

Iburi	Hidaka	Ishikari	Sorachi	Shiribeshi	Oshima	Hiyama
386	42	445	46	37	1	0

Kamikawa	Rumoi	Souya	Okhotsk	Tokachi	Kushiro	Nemuro
2	1	1	1	10	1	0

Inside Hokkaido 973
Outside Hokkaido 2 (Kanagawa (1)、Saitama (1))
Overseas 8 (Malaysia (2)、Mongolia (5)、Laos (1))
Total 983

Applicants

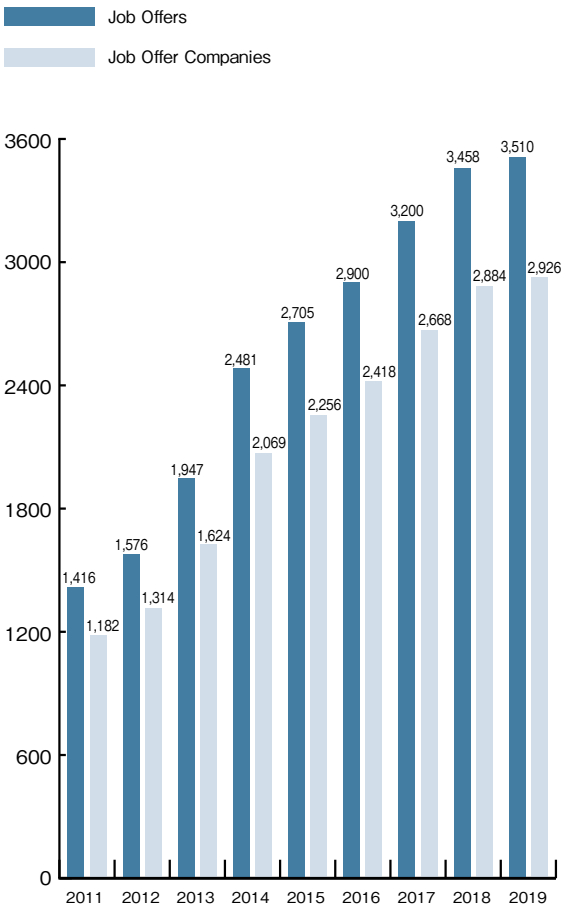
	Engineering for Innovattion	Mechanical Engineering	Electrical and Electronic Engineering	Computer Science and Engineering	Science and Engineering for Materials	Civil Engineering	Total
2011	-	52	69	62	51	46	280
2012	-	101	65	65	66	64	361
2013	-	59	36	73	61	73	302
2014	-	84	69	78	80	79	390
2015	-	73	76	94	58	59	360
2016	330	-	-	-	-	-	330
2017	321	-	-	-	-	-	321
2018	423	-	-	-	-	-	423
2019	411	-	-	-	-	-	411
2020	384	-	-	-	-	-	384

Scholarship Students

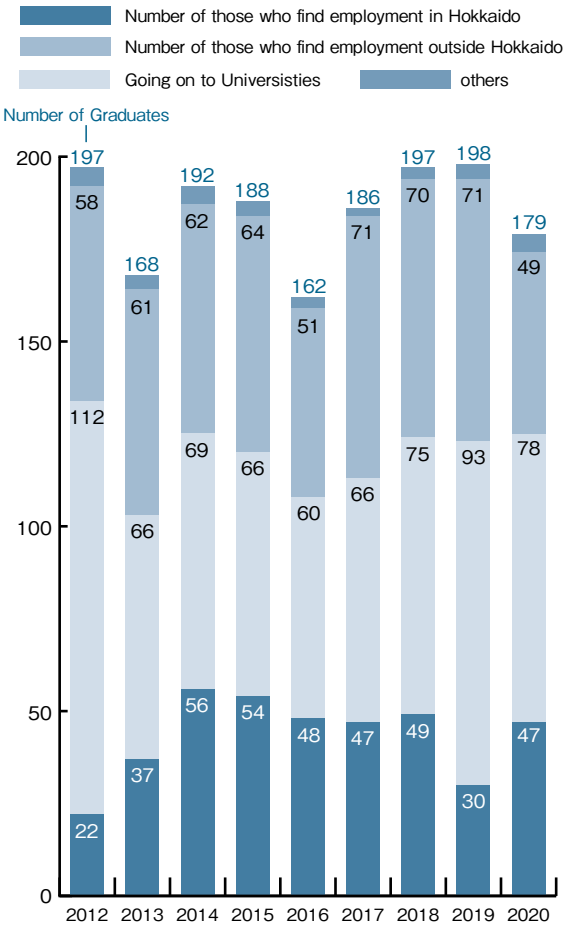
	Japan Student Service Organization	Other Scholarship Grantees	Percentage of Scholarship antees
2011	160	18	16.5%
2012	157	33	17.8%
2013	136	21	14.8%
2014	120	26	13.9%
2015	109	27	13.1%
2016	102	40	13.6%
2017	91	50	13.5%
2018	79	61	13.6%
2019	64	60	12.1%

Employment

Job Offers



Career Choice



List of Employment

	Company
Mechanical Engineering	Central Japan Railway Company (JR Central) / Idemitsu Kosan Co.,Ltd / DMG MORI CO., LTD. / DAIKIN INDUSTRIES,LTD / Toyo Seikan Co.,Ltd. / Hokkaido Railway Company / Dynax Corporation / Zeon Corporation / JXTG Holdings, Inc. / FANUC CORPORATION / MAKINO / DIC Corporation / Asahi Kasei Corp. / Kao Corporation / Calbee, Inc. / Kirin Holdings Company, Limited / Toray Industries, Inc. / SUBARU CORPORATION / Honda Motor Co., Ltd. / Hokkaido Gas Co., Ltd. / Hokkaido Electric Power Co., Inc. / City of Sapporo / ANA Engine Technics CO.,LTD. / JAL Engineering Co., Ltd. / THE JAPAN STEEL WORKS,LTD.
Electrical and Electronic Engineering	JX Engineering Corporation / KDDI CORPORATION / Idemitsu Kosan Co.,Ltd. / Canon Marketing Japan Inc. / KONICA MINOLTA JAPAN, INC. / DAIKIN INDUSTRIES, LTD., / CHUBU Electric Power Co.,Inc. / Japan Electric Meters Inspection Corporation / FUJITSU LIMITED / FUJITEC CO., LTD. / Hokkai Electrical Construction Co., Inc. / MARUMO ELECTRIC CO.,LTD. / MITSUBISHI ELECTRIC BUILDING TECHNO-SERVICE CO.,LTD. / UNITIKA LTD. / NHK Technologies, Inc. / NTT FACILITIES. / Tamadic Co., Ltd. / TSUKEN CO.,Ltd. / DOCOMO CS Hokkaido INC. / Hitachi High-Tech Fielding Corporation. / Hitachi Power Solutions Co.,Ltd. / YASKAWA ELECTRIC CORPORATION. / Hokkaido Electric Power Co., Inc.
Computer Science and Engineering	NTT Com Solutions Corporation / NTT East Corporation / Advanced Planning Corporation / WELLNET CORPORATION(2) / NIandC NETSYSTEM Inc. / Canon System & Support Inc.(2) / Canon Inc. / Qualysite Technologies Inc. / Sony Engineering Corporation. / Computer Institute of Japan, Ltd. / DNP Digital Solutions Co., Ltd. / JAL Engineering Co., Ltd. / NTT DATA MSE CORPORATION. / NTT DATA FRONTIER CORPORATION. / J-MAC SYSTEM, Inc. / SAISON INFORMATION SYSTEMS CO.,LTD. / TECHNO LABO Co.,Ltd. / HIMACS, Ltd. / Central Japan Railway Company / NIPPON STEEL TEXENG.CO.,LTD. / JATEC Co,.Ltd. / FUJITSU LIMITED
Science and Engineering for Materials	Asahi Kasei Co. / Chugai Pharma Manufacturing Co., Ltd. / Daiichi Sankyo Chemical Pharma Co., Ltd. / Daikin Industries, Ltd. / DIC Co. / Dainichi Seika Co. / DKS Co. Ltd. / Foundation for Promotion of Material Science and Technology of Japan / Hokkaido Gas Co., Ltd. / Hokkaido Soda Co., Ltd. / Hokkaido Sumiden Precision Co., Ltd. / Idemitsu Kosan Co. / Japan Blood Products Organization / JSR Co. / JXTG Nippon Oil & Energy Co. / Kao Co. / Kirin Holdings Co., Ltd. / Lion Co. / Mitsui Chemicals Inc. / Morinaga Milk Indutries Co. / Nipro Co. / Nitto Denko Co. / Ogawa & Co.,Ltd. / Oji Paper Co. / Seiko PMC Co. / Suntory Holdings Ltd. / Toray Industries, Inc. / Toyo Ink SC Holdings Co., Ltd. / Toshin Industry Co., Ltd.
Civil Engineering	Itogumi Construction Co., LTD. / NTT InfraNet/ PENTA-OCEAN CONSTRUCTION CO., LTD. / Showa Shell Sekiyu K.K. / Dai Nippon Construction / Tokyu Construction. / TODA CORPORATION / Naigai Engineering Hokkaido Co., Ltd. / NITTOC Co., Ltd. / East Nippon Expressway Company Limited / East Japan Railway Company / Civitec co.Ltd., / ZENITAKA CORPORATION / Nexco-Engineering Hokkaido Company Limited / Aqua Technology Engineering Consultants Corporation. / Yokogawa System Buildings Corp. / Central Japan Railway Company / NIPPON STEEL CORPORATION / NIPPON HIGH STRENGTH CONCRETE CO., LTD, / KONOIKE CONSTRUCTION CO.,LTD, / Okumura Corporation / Nakayamagumi Co., Ltd. / Hokkaido Gas Co., Ltd. / Tanaka Consultant Co., Ltd.
Electronics and Production Systems Engineering Course	Canon System & Support Inc. / Fujitsu Limited / GREE, Inc. / Komatsu Ltd. / Sony Engineering Corporation. / Panasonic Corporation / Yahoo Japan Corporation. / Mitsubishi Electric Plant Engineering Corporation / Fuji Electric Co., Ltd.
Environmental System Engineering Course	Central Japan Railway Company / Chugai Pharma Manufacturing Co., Ltd. / East Japan Railway Company / East Nippon Expressway Co., Ltd. / Kao Corporation / Kirin Brewery Company, Limited / NTT InfraNet / Showa Shell Sekiyu K.K. / Tokyu Construction

Admission into Higher Schools

Admission into Higher Schools

Universities	2016	2017	2018	2019	2020	TOTAL
Hokkaido University	5	6	2	4	1	154
Hokkaido University of Education						12
Muroran Institute of Technology	6	12	14	9	5	285
Otaru University of Commerce	1					3
Obihiro University of Agriculture and Veterinary Medicine			1	1		17
Kitami Institute of Technology		1	1	3		67
Hirosaki University				1		8
Iwate University	1		1	1		36
Tohoku University					1	13
Akita University		1		1		11
Yamagata University						5
Ibaraki University	2				1	14
University of Tsukuba						12
Gunma University						4
Chiba University		1	1	2		28
University of Tokyo				1		6
Tokyo University of Agriculture and Technology	2			1		16
Tokyo Institute of Technology					1	18
National University of Electro-Communications		1			1	12
Niigata University		2	1	1		16
Nagaoka University of Technology	9	8	6	12	10	248
Kanazawa University	2	1		1		12
Shinshu University	1					24
Gifu University						7
Shizuoka University					1	5
Toyohashi University of Technology	4	5	9	5	9	173
Mie University						2
Kyoto University						3
Osaka University						1
Kobe University						4
Other Public Universities		1	3	1 (Sapporo City 1)	1	14
Other Private Universities			1			37
Other Universities Utsunomiya, Saitama, Tokyo foreign country, Tokyo industrial textile, Tokyo city, Yokohama national, Fukui, Yamanashi, Nagoya, Kyoto industrial textile, Okayama, Hiroshima, Yamaguchi, Kagawa, Kyushu, Kyushu industrial, Saga, Kumamoto etc.	2	9	4	1 (Kagawa 1)	3	66
Advanced Engineering Courses of Tomakomai College	16	23	26	26	15	428
Advanced Engineering Courses of other College						23
Total	51	71	70	71	49	1784

Admission into Higher Schools by Departments

Department	2016	2017	2018	2019	2020
Mechanical Engineering	13	18	11	11	9
Electrical and Electronic Engineering	10	16	12	16	11
Computer Science and Engineering	10	10	18	10	5
Science and Engineering for Materials	11	14	14	13	10
Civil Engineering	7	13	15	21	14
Total	51	71	70	71	49

Admission into Graduate School

University	2016	2017	2018	2019	2020	TOTAL
Hokkaido University	3	4	1	3	3	44
Muroran Institute of Technology						6
Tohoku University						1
Nagaoka University of Technology		2	2	2	1	15
University of Tokyo						2
Tokyo Medical and Dental University						1
National University of Electro-Communications						1
Other Universities Yamanashi, Shinshu, Nagoya Industry, Kobe, Hiroshima, Hokuriku Advanced Science and Technology, Nara Advanced Science and Technology, etc.			1	1 (Yamanashi)	1	18
Total	3	6	4	6	5	88

Admission into Graduate School by Advanced Courses

Courses	2016	2017	2018	2019	2020
Electronics and Production Systems Engineering Course		3	2	4	5
Environmental System Engineering Course	3	3	2	2	0
Total	3	6	4	6	5

Cooperation with the Community and the Local Industry

In order to perform a role as an institution of higher education open to local communities, we offer opportunities for lifelong education to the local residents. We currently visit local schools and hold public lectures and scientific events. In recent years, local industries have asked us for our professional assistance to solve various problems. To fulfill this requirement, the Community Cooperative Research Center provides consultation for technological development at local firms and institutions.

The Association for Tomakomai College

The Association for Tomakomai College was founded in April 1993, for the purpose of forming a close relationship between local industries and our college, promoting our educational and research activities, and contributing to the progress of the community through the assistance for the technological development and the reeducation of engineers of the local industries. Tomakomai Chamber of Commerce and Industry is the liaison office for this association. Currently, about 178 firms in Tomakomai and the neighboring areas hold the membership.

In recent years, the Association have held regular general meetings and job fairs to encourage students to find employment in and around Tomakomai.

The Association has also provided our college with financial support for our education and research.

C-base: Technology Management Consulting Desk

We established C-Base at Tomakomai Economic Center Building on October 12th, 2018. C-base is a satellite office of Tomakomai KOSEN, which provides local companies with consultation about technology management.

Tomakomai city office, Tomakomai Chamber of Commerce and C-base organize a team to help solve the business problems.

Facilities

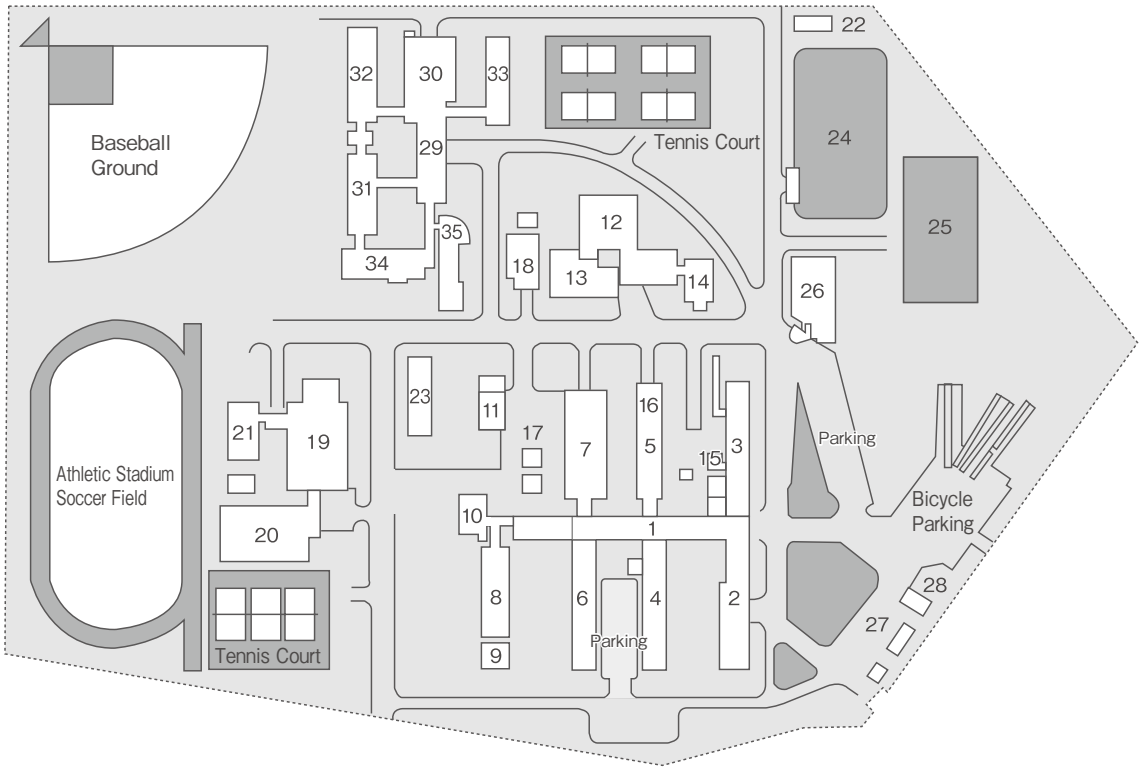
Site

Total Area	Detail	
133,251㎡	College Buildings and Dormitory	127,758㎡
	Faculty Residence	5,493㎡
	Total	133,251㎡

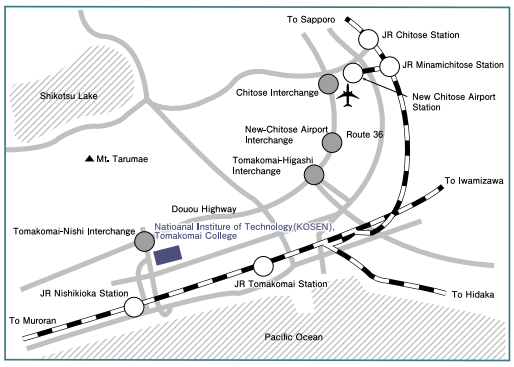
Buildings

Classification		Name	Structure	Floor Space	Total Floor Space
College Buildings	College Buildings facilities	Building A (Classroom Building)	R-3	970	2,868
		Building B (Administration Building)	R-3	704	1,261
		Building C (Electrical Building)	R-3	792	1,856
		Building D (Mechanical Building)	R-3	556	1,668
		Building E (Mechine Practical Workshop)	S-1	702	702
		Building F (Science and Engineering for Materials Building)	R-3	532	1,596
		Building G (Civil Building)	R-3	805	2,367
		Building H (Computer Science and Engineering Building)	R-4	584	2,204
		Building I (Science and Engineering for Materials Laboratory)	R-3	256	519
		BuildingJ (Advanced Engineering Courses)	R-4	316	1,271
		Rainfall Simulator	S-1	49	49
		Subtotal		6,266	16,361
	Equipment of facilities	Administrative Storehouse	S-1	79	79
		Mechanical Engineering Storehouse	B-1	20	20
		Chemical and Pharmaceutical Storehouse	B-1	30	20
		Chemical and Pharmaceutical Storehouse	B-1	20	30
		Garage	R-1	101	101
		Bus Garage	R-1	78	77
		Boiler and Machine Room	R-1,B-1	324	339
		Receiving tank Installation Room	S-1	38	37
		Others		25	25
		Subtotal		715	728
	Education research facilities	Library	R-2	1,224	1,600
		Information Processing Section	R-1	300	300
		Community Cooperative Research Center	R-2	220	416
		Subtotal		1,744	2,316
	Sports facilities	1st Gymnasium	S-1,R-1	998	995
		2nd Gymnasium	S-1,R-1	902	879
		Judo & Kendo Hall	S-1,B-1	277	277
		Judo & Kendo Hall Storehouse		38	38
		Connecting Corridor	B-1	44	44
		Ice Hockey Rink	R-1	1,947	1,947
		Ice Hockey Rink Storehouse	S-1	26	26
		Ice Hockey Rink Locker Room	R-1	63	63
		Archery Range	B-1	43	43
		Subtotal		4,338	4,312
	Welfare Facilities	Welfare Facilities	R-2	467	903
		Facilities for Club Activities	B-1,S-1	242	242
		Subtotal		709	1,145
Domitories	Domitories	Dormitory Administrative Building	R-1	1,324	1,324
		1st Dormitory	R-3	368	1,104
		2nd Dormitory	R-4	448	1,792
		3rd Dormitory	R-3	393	1,179
		4th Dormitory	R-3	339	999
		Women's Dormitory	R-3	490	1,132
		Self-study Building	S-1	117	117
		Connecting Corridor	B-1,R-1,R-3	180	180
		Subtotal		3,659	7,827
		total		17,431	32,689

Campus Map



1 | Building A (Classroom Building)
2 | Building B (Administration Building)
3 | Building C (Electrical Building)
4 | Building D (Mechanical Building)
5 | Building E (Mechine Practical Workshop)
6 | Building F (Science and Engineering for Materials Building)
7 | Building G (Civil Building)
8 | Building H (Computer Science and Engineering Building)
9 | Building I (Science and Engineering for Materials Laboratory)
10 | Building J (Advanced Engineering Courses)
11 | Boiler Room and Machine Room
12 | Library and Information Center (Library)
13 | Library and Information Center (Information Processing Section)
14 | Community Cooperative Research Center
15 | Career Education Center
16 | Support Center (for Engineering and Education)
17 | Rain Fall Simulator
18 | Facilities for Club Activities
19 | 1st Gymnasium
20 | 2nd Gymnasium
21 | Judo & Kendo Hall
22 | Club Room
23 | Club Room
24 | Ice Hockey Rink
25 | Archery Court
26 | Welfare Facilities
27 | Garage
28 | Bus Garage
29 | Dormitory Administrative Building
30 | Dormitory Kitchen and Cafeteria
31 | 1st Dormitory
32 | 2nd Dormitory
33 | 3rd Dormitory
34 | 4th Dormitory
35 | Women's Dormitory



Transportation

By Bus : Take the Nishikioka line bus (No.17) from JR Tomakomai Station (Bus Station) and get off at Kougyoukousen-mae. (about 40 min.)
By Taxi: Take a taxi from JR Tomakomai Station It takes about 20 min. (about 2,500yen)
By Car : It takes about 3 min from Tomakomai-Nishi Interchange

National Institute of Technology (KOSEN), Tomakomai College

059-1275 443 Nishikioka, Tomakomai, Hokkaido
General Affairs Division
tel:+81-144-67-0213 fax:+81-144-67-0814
Student Affairs Division
tel:+81-144-67-8001 fax:+81-144-67-8031
URL : https://www.tomakomai-ct.ac.jp