

## 平成 31 (2019) 年度

## 大学院工学研究科 修士課程 学生募集要項 〔外国人留学生学術交流協定校推薦入試〕 【9月入学】

2019

APPLICATION PROCEDURE FOR ADMISSION TO THE MASTER'S PROGRAM IN THE GRADUATE SCHOOL OF ENGINEERING INTERNATIONAL STUDENTS RECOMMENDED BY ACADEMIC COOPERATION AGREEMENT UNIVERSITIES

[September Enrollment]

出 願 期 間:平成31(2019)年4月22日(月)~4月25日(木)

Application Period : April 22 - 25, 2019

本募集要項に記載されている日付は全て日本時間とします。

\* Dates described in this Application Procedure are based on Japan Standard Time.

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#### **Application Forms**

- 1. Application Form for Admission · Address Card
- 2. Application Document
- 3. Recommendation Letter (Appendix 1)
- 4. Recommendation Letter (Appendix 2)
- 5. Summary of Academic and Professional Activities

Conta	ct
Div	ision of Admissions
Nag	aoka University of Technology
160	3-1 Kamitomioka, Nagaoka,
Niig	gata 940-2188, JAPAN
Pho	ne +81-258-47-9271, 9273
Fax	+81-258-47-9070
e-m	ail: nyushigroup@jcom.nagaokaut.ac.jp

#### APPLICATION PROCEDURE FOR ADMISSION TO THE MASTER'S PROGRAM IN THE GRADUATE SCHOOL OF ENGINEERING INTERNATIONAL STUDENTS RECOMMENDED BY ACADEMIC COOPERATION AGREEMENT UNIVERSITIES [ September Enrollment ]

#### Admission Policy

Nagaoka University of Technology aims to nurture the development of leading engineers and researchers with the practical and creative abilities to bring about global technological development in accordance with the "VOS" spirit (referring to Vitality, Originality, and Services to society). To attain this goal, the education provided at our university to all graduate students is designed to seamlessly continue from the bachelor degree level in order to train leading engineers and researchers. We invite students with the following characteristics to apply:

- 1. Students who have a strong interest in science and technology, and have the necessary fundamental academic ability
- 2. Students who can broaden their thinking based on knowledge, and are able to appropriately express their conclusions
- 3. Students who desire to pioneer new fields and create new theories, have an interest in manufacturing and craftsmanship, and wish to make social contributions through science and technology
- 4. Students who are able to proactively engage in study and research, and are able to collaborate with a wide variety of people to solve problems
- 5. Students who possess rich individuality, abundant human qualities, and a strong sense of responsibility and sincerity

#### 1. Fields of Study and Authorized Student Enrollments

A small number of students will be accepted into each field stated below.

- (1) Mechanical Engineering
- (2) Electrical, Electronics and Information Engineering
- (3) Materials Science and Technology
- (4) Civil and Environmental Engineering
- (5) Bioengineering
- (6) Information and Management Systems Engineering
- (7) Nuclear System Safety Engineering

#### 2. Qualifications

#### 2.1 Qualifications for Application

Non-Japanese who are expected to obtain a resident visa for enrollment to the Graduate School under the Immigration Control and Refugee Recognition Act and satisfy all of the following conditions:

(1) Those who are enrolled at the time of application and expected to graduate by the end of August 2019 from a university with which our university shares a 'memorandum for exchange of students' (hereafter "exchange agreement university"), among universities with which our university has an academic cooperation agreement.

(2) Meet one of the following requirements:

1. Have successfully be expected to complete a 16-year course of school education abroad by the end of August 2019.

2. Those who are expected to obtain a degree equivalent to a Bachelor's degree by the end of August, 2019, from a university or school in a country other than Japan by completing a course of study for at least 3 years.

3. Be deemed by the graduate school of engineering at Nagaoka University of Technology to have academic ability equal to or higher than a graduate of a Japanese university, based on the submitted documents.

(3) Those who possess a high academic rank at school and are acknowledged as excellent both in character and in study by the president or the head of the department of the applicant's university and by the prospective academic supervisor of Nagaoka University of Technology.

(4) Those who can submit all the following documents at the time of application.

- 1) Recommendation letter of the president or the head of the department of the applicant's university. (Appendix 1)
- 2) Recommendation letter of the prospective academic supervisor of Nagaoka University of Technology. (Appendix 2)

#### 2.2 Confirmation of Application Qualifications

#### Applicants are required to confirm their qualifications.

Before submission of the application documents, be sure to contact Division of Admissions by March 19, 2019. The office will provide documents for the application qualification. Filled documents should be submitted to the office.

\* The University will assess the qualifications of applicants indicated under subsection (2)-3. in section 2.1 "Qualifications for Application" based on the submitted documents.

The following documents for assessment should be submitted to the office by March 22, 2019. Only applicants whose qualifications are met with the university requirement may submit application documents. We will send applicants a result of assessment of qualifications by April 5, 2019.

The applicants under subsection (2)-3. in section 2.1 "Qualifications for Application" must submit the following documents;

1) Summary of Academic and Professional Activities (provided form)

2) Academic Record (transcript), Certificate that confirms the expected date of graduation and document confirming the award of bachelor's degree

\* The office may request submission of additional documents according to academic background and career.

\* All of these materials should be filled out in English or in Japanese, using a typewriter or word processor or a black ballpoint pen (block letters). If any certificates are written in another language, please attach a translation in English.

#### 3. Decision on the Prospective Academic Supervisor

Applicants to this admission must obtain a recommendation letter from the prospective academic supervisor at Nagaoka University of Technology.

Consult with the current academic supervisor and/or the academic staff of Nagaoka University of Technology who is in charge of the exchange agreement about preferred supervisor, and confer with him/her about your acceptance. He or she will evaluate your qualifications for our master's program through an interview or some other means, and will decide whether he/she recommends you as a prospective academic supervisor.

#### **4. Application Procedure**

#### 4.1 Application Period and Mailing address

Submission: Send them by mail to the address below. Application Period:

April 22 -25, 2019 < Must be received by the final day in the application period>

Mailing Address: Division of Admissions, Nagaoka University of Technology 1603-1 Kamitomioka, Nagaoka, Niigata 940-2188 JAPAN

#### **4.2 Screening Fee**

Screening Fee Deposit into the following account is required:

1) Amount of Screening Fee: 30,000 yen

2) Receiving Bank Account:

Name of the Bank	Mizuho Bank (Bank No.0001)
Branch Name	Niigata Branch (Branch No.400)
Account No.	1717958 (Saving Account)
Account Holder's Name	Nagaokagijyuthukagaku Daigaku
Routing No. (SWIFT code)	MHCBJPJT
Bank Address	5942 Nishiboridoori-rokubancho, Niigata,
	Niigata 951-8061 JAPAN
	Phone: +81-25-229-2331 FAX: +81-25-224-5484

3) Payment Procedure

\*Any Handling Charges incurred by this remittance are responsibility of the applicants. 1. Payment from Japan:

**TRANSFER** the amount of 30,000 yen to the designated bank account together with additional handling fees. Upon application for admission, a copy of the screening fee bank transfer receipt should be submitted.

\* Sender's name must be the same as that of the applicant.

#### 2. Payment from abroad:

Make the **ADVICE PAYMENT** of total amount below to the designated account by **WIRE TRANSFER**:

Please note the items below upon overseas remittance;

(a) Upon overseas remittance, be sure to <u>indicate that any handling charges incurred by the</u> remittance are charged to the sender (applicant).

The applicant is responsible for ALL the remittance fee including handling charges at the bank in applicant's country of residence, corresponding bank fees, and the commission fee charged at the bank in Japan, etc. (All the details should be asked at the bank in the applicant's country of residence.)

- (b) Upon application for admission, a copy of the screening fee bank transfer receipt should be submitted.
  - \* Sender's name must be the same as that of the applicant.

#### **4.3 Documents to be submitted**

All of these materials should be filled out in English or in Japanese, using a typewriter or word processor or a black ballpoint pen (block letters). If any certificates are written in another language, please attach a translation in English.

Application Form forComplete the form and attach photogAdmission,should be taken within the past 3 montExamination Admission Cardmm; full face, front view, no hat of sungAddress CardThis card will be used for mailing from applicant. Name and mailing address (it	
Examination Admission Cardmm; full face, front view, no hat of sung2Address CardThis card will be used for mailing from applicant. Name and mailing address (from the sungle superior card)	ths with size of $40 \times 30$
2Address CardThis card will be used for mailing from applicant. Name and mailing address (it	
2 Address Card applicant. Name and mailing address (i	glass.
	including zip code) in
the card must be accurate for prompt and	d certain delivery.
Copy of Screening Fee Transfer Please refer to <b>4.2 Screening Fee</b> abov	ve.
Receipt from Bank Payer's name must be the same as that	
4 Academic Record (transcript) Transcript should be authorized by inst	titution.
Certificate that confirms the Graduation certificate or similar of	document should be
5 expected date of graduation and authorized by institution.	
document confirming the award	
of bachelor's degree	
6 Application Document Complete the form.	
Recommendation Letter To be completed by the president or the	
7 (Annex 1) of the applicant's university and to be	placed in a SEALED
envelope with its flap signed by the refe	
8 Recommendation Letter To be completed by the prospective a	cademic supervisor of
(Annex 2) Nagaoka University of Technology	
Brief summary of Bachelor's thesis	
research study conducted by the ap	oplicant at university
9 Report on Research Activities (maximum of 300 words in English of Learners)	or 1,000 characters in
Japanese).	
In addition to this report, the applied	cant may submit any
pertinent research papers and other mate	erials.
Copy of passport (cover and page	ges including name,
Copy of Passport OR nationality, photograph and date of birth	n) OR
Copy of Certificate of Copy of Certificate of citizenship of the	he applicant's country
I III I AT I IIII I AT I III AT I III I AT I IIIII I AT I IIII I AT I IIIII I AT I IIIII I AT I IIII AT I IIII I AT I IIII AT I IIII I AT I I	ality, photograph and
Citizenship of the Applicant's date of birth)	
Country of Residence * The name on all application document	nts should be the name
as that appeared on the above certificate	

#### NOTE:

- 1) **Documents will not be returned.** No change regarding the contents of the documents will be accepted except change of the applicant's address or telephone number.
- 2) All certificates must be original. If you can't submit an original certificate, please submit a copy that has been certified by an embassy or other public institution.

#### 3) The screening fee is not refundable EXCEPT in the following cases:

- a) The applicant has not submitted your application materials.
- b) The applicant is otherwise ineligible for application.

c) The applicant has already paid the screening fee.

d) The applicant enters our university as a Japanese Government (Monbukagakusho) Scholarship Student.

#### **Refund Procedure**

Contact the section below to obtain a screening fee refund form.

To request the refund, fill and submit the obtained form to the section with Screening Fee Transfer Receipt from Bank as soon as possible; (Contact and Mailing Address) Section of Accounting, Division of Financial Affairs, Nagaoka University of Technology, 1603-1 Kamitomioka, Nagaoka, Niigata 940-2188 Japan Phone: +81-258-47-9215 FAX: +81-258-47-9040

#### NOTE : This procedure takes about one month.

#### 4.4 Registration of E-mail Address

The applicant is required to send an e-mail titled "Application to the Master's Program (Recommended by the Academic Cooperation Agreement Universities)" to the following e-mail address with the information below after the required application documents are sent to the designated mailing address indicated in section 4.1. For this e-mail address registration, the applicant is asked to use the e-mail address indicated on submitted Application Form for Admission.

#### E-mail: nyushigroup@jcom.nagaokaut.ac.jp

Information included in the e-mail message:

(1) Applicant's name

(2) Name of applicant's university

(3) Preferred field of study

#### 4.5 Notification of Examination Admission Card

Notification of Examination Admission Card will be sent to the applicant's registered e-mail address upon confirmation of application documents. The applicant is asked to obtain the Examination Admission Card from the designated university's website.

If the applicant does not receive the notification by Friday, May 17, 2019, please contact Division of Admissions.

#### **5. Screening Procedure**

The screening will be done on the basis of the submitted application documents.

#### 6. Notification of Admission

June 13, 2019, 10:00 a.m.

The results of the screening (examinee numbers of successful applicants) will be posted on the notice board at the university. Successful applicants will receive formal notification of admission by mail.

The success rate for graduate school admission will be displayed on the university's website; http://www.nagaokaut.ac.jp/.

No inquiry will be accepted by telephone or other means.

#### 7. Enrollment Procedure

Detailed information regarding the enrollment procedure will be given with notification of admission.

Applicants who have received notification of admission need to fill out and submit documents that are included in the enrollment procedure information. They are also required to pay the admission fee and tuition.

(1) Admission fee: 282,000 yen (not refundable for any reason)

#### (2) Tuition: 535,800 yen per year

Students must pay a part of the tuition for the academic year 2019 at the time of enrollment (44,650 yen for the month of September). The remaining tuition (267,900 yen for the remainder of the academic year) may be paid either at the time of enrollment or in November.

In the event that the tuition fee is revised, the revised tuition fee will be applied.

#### 8. Privacy Policy

The personal information described on the application documents such as address, name, date of birth, etc. will be managed appropriately, and not used except for the following purposes.

- (1) Procedures for student admission and its announcement, admission process and matters related thereto.
- (2) Management of school register, course registration and academic record after enrollment.
- (3) Basic data for the improvement of the method of selecting entrants.

#### 9. Security Export Control

Nagaoka University of Technology has established "National University Corporation Nagaoka University of Technology Security Export Control Regulation" in accordance with "Foreign Exchange and Foreign Trade Act", and conducts strict examinations for acceptance of international students, etc. Applicants from overseas who fall under any of the conditions set out in said regulations may be unable to enter their desired course or program.

#### **10. Miscellaneous**

- (1) The application will not be accepted unless all of the application documents are fully and correctly completed.
- (2) Further information is available at Division of Admissions.

#### 11. Fields of Study and Research Areas

When choosing the field of study of our graduate school and the research area, please refer to the university's website; http://souran.nagaokaut.ac.jp/index-e.jsp

	Fields of Study	Research Areas				
		Information and Control Engineering				
		Design and Production Engineering				
	Mechanical Engineering	Heat and Fluid Engineering				
		Material Science and Engineering				
		Innovative Interdisciplinary Mechanical Engineering				
	Electrical, Electronics and	Electric Energy System and Control Engineering				
	Information Engineering	Electronic Devices and Photonics Engineering				
		Information, Telecommunication and Control Systems				
		Materials Function Engineering				
	Materials Science and	Materials Design Engineering				
	Technology	Energy and Environment Materials Engineering				
Graduate		Biointeractive and Bioinspired Materials Engineering				
School of		Infrastructure Design				
Engineering	Civil and Environmental	Infrastructure Management				
	Engineering	Disaster Prevention Systems				
		Environment Management				
		Bioproduction Engineering				
	Bioengineering	Biosystems Engineering				
	Dioengineering	Environmental Bioengineering				
		Biomaterials Engineering				
	Information and	Human Informatics				
	Management Systems	Management Systems				
	Engineering	Social Information Systems				
	Nuclear System Safety	Safety Technology				
	Engineering	Safety Management				
	Linginooring	Advanced Energy Engineering				

#### **Remarks on Application Form for Admission**

#### **General Instructions**

- 1. Use a black ball-point pen. Print clearly.
- 2. Fill in only the items enclosed inside the thick line.
- 3. Use Arabic figures (1, 2, 3, 4....).
- 4. It is impossible to revise application form, once submitted.

5. Admission may be canceled if a fact is concealed or a deception is found in the application.

#### **Instructions on Particular Items**

#### 1. Name, etc.

Write the applicant's full name, date of birth and current address, and mark either male or female with a circle. Do not use an alias or abbreviation, and spell the name as it appears on Passport or other official documents.

#### 2. Qualification for Application

Write the course, department, and university/graduate school that you are about to graduate from and month and year of expected graduation. And mark the appropriate items with circles.

Those applying under subsection (2)-3. in section 2.1 "Qualifications for Application" on p.1 called "specially qualified", should circle "specially qualified".

#### 3. Contact Address for the Exam.

Provide the address, telephone number etc. which are the most appropriate for immediate and reliable contact to the applicant. If there is any change in the provide contact information, notify us the change as soon as possible.

#### 4. Preferred Field of Study, Preferred Research Area, Prospective Academic Supervisor

Fill in these items, referring to "11. Fields of Study and Research Areas" on p. 5.

#### 5. Background

List your educational background consecutively from elementary education without leaving any intervals.

#### 6. Address Card

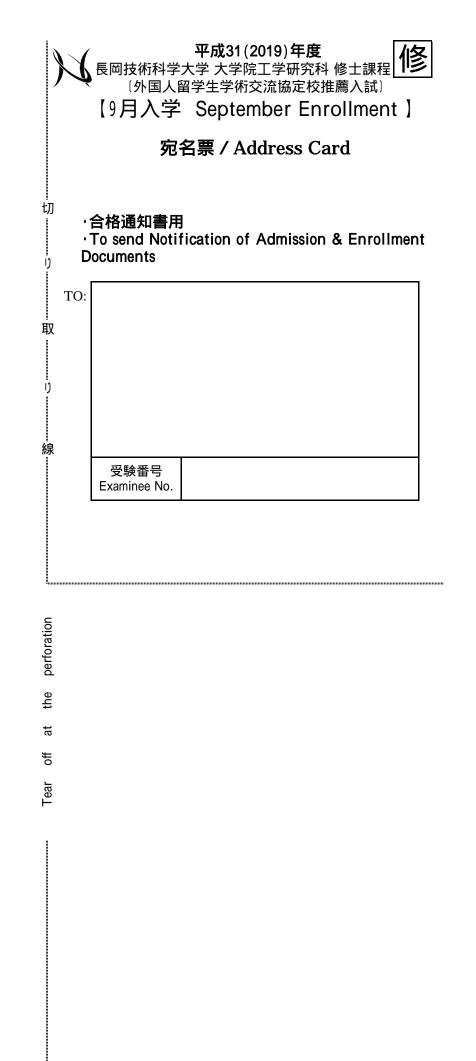
This card will be used for mailing from the university to the applicant. Be sure that the name and mailing address (including zip code) in the card must be accurate for prompt and certain delivery.

平成31(2019)年度 長岡技術科学大学 大学院工学研究科 修士課程 2019 Master's Program in the Graduate School of Engineering, Nagaoka University of Technology

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					JNIVERSITIES	J		
	[ ·	9月入学	Septembe	er Enrolln	nent]			
	入	学志	願票					
	Applicati	on Form	n for Adr	nission	受験番号 Examinee No.			
フリガナ					性別	(顔の大きさ)		
氏 名 Name					Sex M 男			
生年月日 Date of Birth		年 (year)	月 (month)	E (day	子生 小 F女			
		(year)	(month)	(00)	/)			
現住所 Current								
Address								
		•••				(40mm×30mm Photo)		
出願資格	国立(State) <u>(Uni</u> 公立(Public)	versity)			大学	、 年 月撮影		
Qualification	私立(Private) (De	partment)			学部	<u>(year) (month) (taken)</u> 国 籍		
for Application	出願資格認定 (Co				学科	Nationality		
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受験のための 連絡場所								
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Exam.	1	· ·	)	-	("ד			
		e-mail:		and Anna	指導	導予定教員名		
志望専攻 Pr	eferred Field of Study	志望講座名	Preferred Resea	arch Area		Academic Supervisor		
履 歴 Back	ľ – – – – – – – – – – – – – – – – – – –	<u> </u>						
	<u>from 年(ye</u> to 年(ye		nonth) nonth)					
	from 年(ye		nonth)					
	to 年(ye	1	nonth)					
	from 年(ye	ar) 月(m	nonth)					
学 歴 Educational	to 年(ye	ar) 月(m	nonth)					
Background	from 年(ye	, ,	nonth)					
	to 年(ye		nonth)					
	from 年(ye		nonth)					
	to 年(ye		nonth)					
	from 年(ye	, ,	nonth)					
	to 年(ye		nonth)					
職 歴	from 年(ye		nonth)					
Employment	to 年(ye		nonth) nonth)					
Background	<u>from 年(ye</u> to 年(ye		nonth)					

記入にあたっては、「入学志願票等記入上の注意」を参照してください。

Please refer to "Remarks on Application Form for Admission ".



大学院修士課程 学術交流協定校推薦 For Master's Program

受 験 番 号

Examinee No.

## 志望調書

**Application Document** 

長岡技術科学大学

			University		フリカ・ナ			
志望専攻 Preferred Field of Study	専攻	出身大学 University Attended	Department Course year	will graduate month	氏 名 Name			
本学大学院を志望する理由								

State the reason why you apply to our university.

大学院入学後、特に研究したいテーマとその概要

Briefly describe a specific subject or topic that you would like to study in our university

#### 推薦書 RECOMMENDATION LETTER

## 長岡技術科学大学長 殿TO: President, Nagaoka University of Technology

#### 推薦者 Recommender

署 名 Signature:	日 付 Date :	
氏 名 Name :	役職名 Title / Position :	
大学名 Name of Institution:		

大学印 Seal of Institution:

#### 推薦文 Recommendation Remarks:

志願者 Applicant	
氏名 Full Name:	男(Male)・女(Female)
在学期間 Period Attended:	

<sup>\*</sup> This form should be completed by the president or the head of department of the applicant's university and be placed in a SEALED envelope with its flap signed by the referee.

#### 推薦書 RECOMMENDATION LETTER

	Prospective Academic Supervisor )
氏 名(署名) Nomo:	日 付 印 Date :
Name	Date .
長岡技術科学大学 Nagaoka University of Technolo	ду
担当専攻	役職名
Department :	Title / Position :
推薦文 Recommendation Remain	arks :
志願者 Applicant	
氏名 Full Name :	男(Male)・女(Female
大学名 Name of the Institutio	on:
	11 ·

 
 確認印欄

 志願者志 望専攻専 攻主任印
 本学協定 大学担当 教員印

(備考欄)

( tear off at the perforation )

For Assessment of Qualification

# 長岡技術科学大学大学院工学研究科 修士課程 出願資格認定審查調書 Summary of Academic and Professional Activities

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フリガナ						男							
氏名						М		現職等 rent Position					
Full Name					印	女							
					Seal/ Signature	F							
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Birth (Age)				age					e-mail				
学歴(学習歴)Academic Background Write your educational background consecutively from elementary education.													
			学校	・ 学 科 名 €	<del>ب</del>			教育制度に基づく 修学年数		入学及び卒業年	-88	在学年数	備考
								Required Years of Study in Educational		and Month of Er		Period of Schooling	
			Institution, F	ield of Study / Maj	jor			System in Applicant's Country	Tea	Completion		Applicant Has Attended	Comments (if any)
							卒業		from	yr.(年)	mo.(月)	yrs.(年)	
						с	completion	yrs.(年)	until	yr.(年)	mo.(月)	mos.(ヶ月)	
							卒業		from	yr.(年)	mo.(月)	yrs.(年)	
						с	completion	yrs.(年)	until	yr.(年)	mo.(月)	mos.(ヶ月)	
						卒業 from			yr.(年)	mo.(月)	yrs.(年)		
						с	completion	yrs.(年)	until	yr.(年)	mo.(月)	mos.(ヶ月)	
							卒業		from	yr.(年)	mo.(月)	yrs.(年)	
						с	completion	yrs.(年)	until	yr.(年)	mo.(月)	mos.(ヶ月)	
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						C	tompletion	yrs.(年)	from	yr.(年)	mo.(月)	yrs.(年)	
			職歴		研究開発等)及7		*	かるように詳しく証		yr.(年) こと、) Employm	mo.(月) nent Backgrou	mos.(ヶ月)	
年月	year	month						ience (Research, De			ioni Duongi o		備 考 Comments
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					志望		動機工	Reasons for Applica	ation				

第1志望の講座名							
Preferrd Research Area (first choice)							

志望の専攻名( で囲んでください。)Preferred Field of Study (circle first choice)			
機械創造工学専攻	電気電子情報工学専攻	物質材料工学専攻	環境社会基盤工学専攻
Mechanical Engineering	Electrical, Electronics and Information Engineering	Materials Science and Technology	Civil and Environmental Engineering
生物機能工学専攻	情報・経営システム工学専攻	原子力システム安全工学専攻	
Bioengineering	Information and Management Systems Engineering	Nuclear System Safety Engineering	

#### Admission Policy for the Master's Program

#### [Mechanical Engineering]

#### Field of Study

" Advanced application of machinery to lead manufacturing industries "

#### **Objectives**

The objective of our Mechanical Engineering program is to educate students as leading engineers or researchers who can play active roles in globalized communities, or as challenging technologists who can contribute toward sustainable development of our society. Those engineers, researchers, or technologists are expected to have practical abilities to achieve technological innovation or to develop new engineering fields by means of applying specialized knowledge in the fields of study listed below:

- Information and Control Engineering
- Design and Production Engineering
- Heat and Fluid Engineering
- Materials Science and Engineering
- Innovative Interdisciplinary Mechanical Engineering

#### Prospective Students

Our department widely invites following students:

- Students seeking to become leading engineers who possess high-level skills in technology development in the fields above to play active roles in globalized communities
- Students who desire to study or solve difficult issues actively and independently with immense curiosity
- Students who have extensive interest in mechanical engineering, and wish to create new technologies that meet a variety of society's needs by means of applying systematical understanding of the scheme of natural sciences
- Students who desire to gain international communication skills of utilizing English, Japanese, and expertise, aiming to carry out harmonious activities in globalized communities under mutual understanding of various ideas and cultures

#### Courses and modules required prior to admission

In accordance with the curricula established by undergraduate courses of universities and postgraduate courses of College of Technology (KOSEN), students are supposed to have acquired basic academic competence and practical skills in all relevant subjects required to undertake courses on the master's level.

In the Mechanical Engineering program, it is particularly essential that students possess a wide range of knowledge from basics to practice. The following skills and knowledge are required in the respective fields of study; students are advised to survey relevant literature prior to the admission.

- Information and Control Engineering: Skills and knowledge relating to mechanical systems information and control technology
- Design and Production Engineering: Skills and knowledge relating to mechanical design, processing, production systems, and tribology
- Heat and Fluid Engineering: Skills and knowledge relating to machines that contribute to life of humans and the use of energy
- Materials Science and Engineering: Skills and knowledge relating to integral materials systems, from the creation of advanced functional materials to evaluation of reliability of material
- Innovative Interdisciplinary Mechanical Engineering: Skills and knowledge across existing fields in mechanical engineering that lead to create a novel engineering field

[Electrical, Electronics, and Information Engineering]

"The very latest in electrical, electronics, and information engineering that paves the way for a prosperous, safe and secure society "

#### Student profile

This major includes three courses: Electrical Energy Systems and Control Engineering, Electronic Devices and Photonics Engineering, and Information, Telecommunication and Control Systems Engineering.

We have prepared modules for each of these courses that enable students to systematically study the following: new technologies such as systems that generate, transport, and control energy and new materials; advanced devices with combined electro/optical functions for sophisticated information, efficient energy, safe and reliable society; and advanced information and telecommunication technologies used in multimedia communications and ubiquitous networks, as well as information processing and measurement technologies related to human communication. Each course will provide teaching and research guidance that corresponds with more advanced interdisciplinary fields. We will nurture leading engineers and researchers who, after completing their course, will be able to play an active role on a global level and utilize the practical and creative abilities, which will enable them to contribute to the sustainable development of society. To this end, we accept students with the following interests:

- Students with keen interest in research in the electrical, electronics, and information engineering fields who have a desire to contribute to the development of these fields
- Students with immense curiosity who desire to actively engage in study and research
- Students with a desire to improve their ability to use Japanese and English to express their ideas logically in writing and verbally and to apply their ideas

#### Courses or curricula that should be completed prior to admission

It is desirable to complete basic studies necessary for admission to a master's course in accordance with the curricula established by universities and postgraduate courses of technical colleges. Depending on the desired course, it is essential that students have basic knowledge and basic experiment skills in electrical engineering, electronics engineering, and information engineering; consequently, it is desirable that students study these areas beforehand.

#### [Materials Science and Technology]

#### Field of Study

" The joy of creating. An inquiring mind. New materials to change the world." ..

#### **Objectives**

This major provides an innovative course that focuses on a thorough study of substances and materials, the pursuit of innovative research by taking part in research projects, and training in presentation skills to effectively convey the results of research. Our objective through such innovative teaching is to nurture leading engineers and researchers who have the practical abilities to take initiative in developing cutting-edge materials that will play a major role in the industry. These engineers will be capable of contributing to the sustainable development of society.

#### Prospective Students

We invite students with the following interests:

- Students seeking to become leading engineers who can play an active role on the world stage and who possess advanced technology development skills related to the materials development fields
- Students with immense curiosity who desire to actively engage themselves in materials development
- Students who desire to gain a systematic understanding of the scheme of natural sciences and then to apply these skills to create new technologies
- Students who desire to gain international communication competence through a good command of English, Japanese, and specialized knowledge

#### Courses and modules required prior to admission

In accordance with the curricula established by universities and postgraduate courses of College of Technology (KOSEN), students are required to have acquired basic academic competence and practical skills in all relevant subjects necessary to undertake advanced master's level courses.

In the Materials Science and Technology program, it is essential that students have basic knowledge and basic experimental skills in physical chemistry, inorganic chemistry, and organic chemistry; thus, the relevant courses and modules should be studied prior to admission

#### [Civil and Environmental Engineering]

#### Field of Study

" Creative civil and environmental engineering for the development of sustainable society "

#### **Objectives**

This course aims to grow leading engineers who have expert knowledge to plan, design, build and maintain infrastructures, considering environmental friendliness, for social, cultural, and economic activities of human, and who have practical and creative ability with integrated and global visions to contribute the development of sustainable society and the mitigation of huge natural disaster.

#### Prospective Students

We accept students with following motivations and abilities:

- Synthetic ability: Students who have various viewpoints and consider happiness and welfare of human keeping in mind the influence of technology on natural environment and cultural and economic activities of human.
- Responsibility: Students who recognize that civil and environmental engineers have responsibility to contribute to the society, considering the influence of technology on society and environment.
- Professional development: Students who desire to acquire expert knowledge in the major fields of study of civil and environmental engineering and to apply them to solve practical problems.
- Problem-solving ability: Students who desire to analyze problems using expert knowledge and skills in civil and environmental engineering and to solve them according to the planned schedule, taking them into engineering consideration and, if necessary, organizing a project team.
- Explanation ability: Students who desire to master technical writing skills, presentation skills, and professional and international communication skills.
- Learning ability: Students who desire to continuously engage themselves in study and research in the industry to catch up with the latest and advanced technology.
- Executive ability: Students who desire to obtain the ability to execute works systematically under given conditions and to complete the results.

#### Courses or curricula that should be completed prior to admission

It is desirable to complete basic studies necessary for admission to a master's course, in accordance with the curricula set up by universities or postgraduate courses of College of Technology (KOSEN). In the Civil and Environmental Engineering program, it is essential that students understand the course subjects required for the master's course, which are related to humanities, social sciences, natural sciences, languages, and subjects related to civil and environmental engineering.

#### [Bioengineering]

#### Field of Study

" An interdisciplinary field that combines the knowledge of biology and engineering principles to solve a wide range of societal problems"

#### **Objectives**

The Department of Bioengineering at Nagaoka University of Technology prepares students to be leading engineers and researchers who employ bio-inspired ideas to tackle a wide range of societal problems while considering bioethical and environmental issues. Biological molecules and systems are highly effective, efficient, and adaptive. We nurture students to gain in-depth knowledge about biological molecules and systems and their applications in various areas including medical, pharmaceutical, environmental, material, and agricultural fields. Students will also learn to collaborate and communicate with diverse people in the globalized society. We also provide students with the chance to participate in cutting-edge research in their selected fields of interest.

#### Prospective Students

We invite applicants:

- who are interested in the advancement of bioengineering knowledge and techniques.
- who desire to improve their abilities to think logically and act rationally based on scientific foundations.
- who are committed to making continuous efforts for their goals.
- who are willing to learn English and Japanese for effective communications with diverse people in the globalized society.

#### Courses and modules required prior to admission

Applicants with a bachelor degree in any field are eligible to apply to our graduate program. We also evaluate the candidacy of applicants without a formal degree based on their research and/or working experience in bioengineering-related fields. Basic knowledge about biology, biochemistry, and biophysics are essential for successful study in the program.

#### [Information and Management Systems Engineering]

#### Field of Study

" The study of information and management to lead the way in a diversified information society "

#### **Objectives**

The objective of this major is to nurture leading engineers, researchers and managers who will be able to play an active role on the world stage and contribute to the sustainable development of society with the practical skills needed to develop creative information technology and management models for producing new products, systems, services as well as business.

#### Prospective Students

Our department invites students with the following interests:

- Students with a strong interest in people and society and a desire to contribute to development in these areas from information and management perspectives
- Students who desire to understand the natural sciences systematically and to apply this knowledge to create new technology
- Students who desire to understand the basics of social science and apply this knowledge
- Students with immense curiosity who desire to engage in studying and solving issues actively and independently
- Students who desire to understand the basics of mathematics, physics, and chemistry in order to gain a scientific understanding of technology and to apply this knowledge
- Students who desire to actively engage in studying English and Japanese and master high-level communication skills
- Students with a desire to improve their global communication skills using specialized knowledge

#### Courses and modules required prior to admission

In accordance with the curricula established by universities and postgraduate courses of College of Technology (KOSEN), students are required to have acquired basic academic competence and practical skills in all relevant subjects necessary to undertake a master's level course. In the Information and Management Systems Science program, it is essential that students possess basic knowledge and skills in information systems, management engineering, and statistics engineering; consequently, students should review the relevant literature prior to admission.

#### [Nuclear System Safety Engineering]

#### Field of Study

" Based on technology, with a system safety perspective, for contribution to the nuclear energy industry "

#### **Objectives**

This major comprises three courses: 1) Safety Technology, 2) Safety Management, and 3) Advanced Energy Engineering. We have prepared a curriculum for these courses that enable students to systematically study the following: 1) knowledge required to technologically guarantee safety in nuclear energy system, in particular, radiation application, backend engineering, nuclear fuel engineering, radiochemistry, earthquake resistant design engineering, and radiation monitoring technology; 2) technology relating to system safety designed to ensure safety such as safety management, risk assessment, technology communication, rules and regulations governing nuclear safety, maintenance engineering, and maintenance system management; and 3) fundamental knowledge of generation of radiation, which forms the foundation of nuclear engineering, reactor engineering. Each course will provide teaching and research guidance that corresponds to more advanced interdisciplinary fields. The courses will nurture advanced engineers and researchers who, after completing these courses, will be able to play an active role worldwide and thus provide the human resources for the sustainable development of our society.

#### **Prospective Students**

This program is meant for students with the following interests:

- Students with a strong interest in research in the field of nuclear system safety engineering and who desire to contribute to its development
- Students who have studied the following specialized fields necessary for research activities: electrical engineering, mechanical engineering, chemical engineering, civil engineering/architecture, information engineering, and bioengineering
- · Students with immense curiosity who desire to actively engage in study and research
- Students with a desire to gain the ability to use Japanese and foreign languages to express their ideas logically in writing and verbally and to apply this ability to social communication

#### Courses or curricula that should be completed prior to admission

It is desirable to complete basic studies necessary for admission to a master's course, in accordance with the curricula established by universities and postgraduate courses of College of Technology (KOSEN).

