平成29年度

九州大学大学院工学府修士課程 学 生 募 集 要 項

2017 APPLICANT GUIDELINES FOR MASTER'S PROGRAMS OF THE GRADUATE SCHOOL OF ENGINEERING, KYUSHU UNIVERSITY

Admission Policy and Curricula Policy of the Graduate School of Engineering

<Admission Policy>

Engineering is the study that permanently investigates the sustained development of the human race based on the principle and laws such as physics and chemistry in the fundamental field of science. In the Graduate School of Engineering, our aim is to bring out the researcher, the engineer, and the educationalist who will contribute to the sustained development of the human race through engineering.

The following matters are expected of a student who aims to study in our graduate school.

- \cdot Students who have the will to wrestle with applied research based on fundamental knowledge
- · Positive students who will make new changes in the field
- · Students who can push forward to search for truth with fortitude
- \cdot Students who will have the ethics as an engineer

<Curricula Policy>

Graduate School of Engineering has been organized into the following advanced departments, namely: Chemistry and Biochemistry, Materials Process Engineering, Materials Physics and Chemistry, Chemical Systems and Engineering, Civil and Structural Engineering, Urban and Environmental Engineering, Maritime Engineering, Earth Resources Engineering, Applied Quantum Physics and Nuclear Engineering, Mechanical Engineering, Hydrogen Energy Systems, and Aeronautics and Astronautics. The aim of each department is to educate and promote deep as well as search and create concerning energy, materials, the environment, and systems through an educational research, and to systematically train the researcher, engineer, and the educator who is involved in engineering with high ethics and internationalism.

To achieve these aims, we execute the following educational programs.

· Systematized education of advanced expertise over application from foundation

 \cdot Education of wide knowledge concerning philosophy, ethics, politics, economy, and international relations, and so on

• Education to develop well-rounded human nature, ability of searching and solving for subjects, as well as creativity

**Admission policy and curricula policy of each department is shown at the URL of Graduate School of Engineering. (http://www.eng.kyushu-u.ac.jp/)

1. Qualifications for Application

Applicants must meet one of the following conditions:

(1) Persons who have graduated, or are scheduled to graduate by March 31, 2017, from a college or university defined in Article 83 of the School Education Act.

(2) Persons who have received, or are scheduled to receive by March 31, 2017, a bachelor's degree as stipulated in Article 104, Clause 4 of the School Education Act (namely those who have been recognized as qualified to receive a bachelor's degree by the National Institution for Academic Degrees and University Evaluation).

(3) Persons who have received, or will have received by March 31, 2017, 16 years of school education in foreign countries.

(4) Persons who have undergone, or are scheduled to have undergone by March 31, 2017, 16 years of school education implemented by a foreign country, including the completion of a correspondence course program provided by a school of the country while living in Japan.

(5) Persons who have completed, or are scheduled to complete by March 31, 2017, an education course provided by a Japanese educational institution that has been recognized by the school education system of a foreign country as the country's academic course and designated by the Japanese Ministry of Education, Culture, Sports, Science, and Technology, provided that the persons have received 16 years of the country's school education.

(6) Persons who have completed, or are scheduled to complete by March 31, 2017, a specialist course provided by a vocational school designated by the Ministry of Education, Culture, Sports, Science, and Technology (a four-year or longer course that fulfills the criteria established by the Ministry) on the day specified by the Ministry or later.

(7) Persons who have been designated as qualified applicants by the Minister of Education, Culture, Sports, Science and Technology.

(8) Persons who entered a graduate school according to Article 102, Clause 2 of the School Education Act and have been recognized by the Graduate School of Engineering as having an adequate academic ability to receive education in the school.

(9) Persons who are aged, or scheduled to become by the time of admission, 22 years or older and have been recognized by the Graduate School of Engineering, based on an individual screening of applicants' qualifications for admission, as having the academic ability at least equivalent to that of a university graduate.

(10) Persons who have undergone 15 years of school education in foreign countries, and have been recognized by the Graduate School of Engineering as having received the required number of credits with excellent results.

(11) Persons who have undergone 15 years of school education implemented by a foreign country, including the completion of a correspondence course program provided by a school of the country while living in Japan, and are recognized by the Graduate School of Engineering as having received the required credits with excellent results.

(12) Persons who have completed an education course provided by a Japanese educational institution that has been recognized by the school education system of a foreign country as the country's academic course and designated by the Japanese Ministry of Education, Culture, Sports, Science, and Technology, by receiving the required number of credits with excellent results, provided that the persons have received 15 years of the country's school education.

[Notes concerning application]

Applicants who are employees of central or local governments or companies or those who have been qualified by (2) or any of (8) to (12) of the "Qualifications for Application" shall consult the Student Affairs Section, Student Affairs Division (Section 15) of Kyushu University, Graduate School of Engineering prior to submitting an application form.

** Applicants wishing to be qualified by any of (8) to (12) of the "Qualifications for Application" must undergo screening in advance.

2. Admission Capacity

Departments	Capacity	Departments	Capacity
Departments in Materials Science and Engineering 136		Departments in Mechanical and Aerospace Engineering	122
\cancel{a} Chemistry and Biochemistry	38	☆ Mechanical Engineering Group	92
☆ Materials Process Engineering	30	Mechanical Engineering	(62)
☆ Materials Physics and Chemistry	33	Hydrogen Energy Systems	(30)
🕁 Chemical Systems and Engineering	35	Aeronautics and Astronautics	30
Departments in Global Environmental Engineering 121		Total	379
Civil and Structural Engineering	24		
Urban and Environmental Engineering	28		
Maritime Engineering	21		
Earth Resources Engineering	20		
🖈 Applied Quantum Physics and Nuclear Engineering	28		

(Notes)

Applicants who wish to enter a department marked $\stackrel{\leftrightarrow}{a}$ may apply for Department of Systems Life Sciences (Field of Biotechnology) of the Graduate School of Systems Life Sciences simultaneously. In that case, the applicant should separately submit the copy of the score sheet of TOEIC or TOEFL to the office of the Graduate School of Systems Life Sciences from September 5 to September 9.

Furthermore the oral examination of Department of Systems Life Sciences for examinees who applied to both graduate schools is conducted at the same day: September 28 of the Entrance Examination in Autumn of the Graduate School of Systems Life Sciences. The details are guided in the office of the Graduate School of Systems Life Sciences (e-mail: sls-jimu@sls.kyushu-u.ac.jp). % The above number of "Admission Capacity" contains the recruitment number of the International Master's Program. (Separate recruitment).

[1] Application form for admission	Complete the form prescribed by the Graduate School.
[2] Collation card and Examination admission card	Complete the form prescribed by the Graduate School and paste a photograph.
[3] Registration for the Elective Subject	Examinees who apply to the following departments must submit it. Departments in Materials Science Engineering, Departments in Global Environmental (except the Department of Earth Re- sources Engineering)
[4] Official Academic Transcript	To be issued by the university from which you will graduate or graduated most recently Applicants belonging to the Graduate School of Engineering of Kyushu Univer- sity do not need to submit it.
[5] Graduation Certificate or Statement that confirms expected graduation	To be issued by the university from which you will graduate or graduated most recently Applicants scheduled to graduate from the Faculty of Engineering of Kyushu University do not need to submit it.
[6] Degree Certificate	Only the applicants who have received or are scheduled to receive a bachelor's de- gree by the National Institution for Academic Degrees and University Evaluation must submit it. (Only those who apply under the "Qualifications for Application" (2)).
[7] English Qualifying Examination Score Certificate	TOEIC or TOEFL (However, Functional Materials Chemistry major group in Departments in Materials Science and Engineering accepts only the TOEFL score.) Application: Submit the scanned copy of the score certificate Examination: Bring the original score certificate * Refer to the section 4 about the details * Refer to page 19 [Points of concern] about how to use the score, etc.

3. Documents to be submitted

[8] A stamped envelope for the examination card	Write clearly your name, address and postal code and put a 92-yen stamp on the envelope inserted in these guidelines.
[9] Address Label	Write the applicant's name and address (as written on the Application Form) on the form (sticker) inserted in these guidelines.
[10] Counterfoil of Transfer Receipt of Screening Fee	Affix the "Certificate of Transfer Receipt of Kyushu University Screening Fee (Form C)" with a receipt stamp of the bank in the specified box of the form inserted in these guidelines.
[11] Application for Individual Evaluation of Academic Requirements	Applicants who intend to apply in accordance with qualifications (8) – (12) must submit it. Fill out the provided form.

4 .English Qualifying Examination Score Certificate (TOEIC, TOEFL)

(1) Applicants should choose to take either the TOEIC TEST (be carried out in Japan or Korea), TOEFLiBT, or TOEFL-PBT in advance.

• Score Certificate refers to Official Score Certificate of TOEIC or Test Taker Score Report Examinee Score Report of TOEFL, which is issued and mailed to examinees by each testing agency.

• Score Certificate should have the applicant's mug shot.

 \cdot Only the score certificate of TOEIC or TOEFL taken within two years before the examination day is accepted.

 \cdot The following score is not admitted.

IP Test e.g. TOEIC IP, College TOEIC, or TOEFL ITP

TOEIC Speaking and Writing, TOEIC Bridge, TOEIC Official Score Report

(2) Fill in the score (point) in appropriate box on the application form and submit the scanned copy of the score certificate of TOEIC or TOEFL at the application time.

• Applicant (examinee) should bring the score certificates (original) on the very day of the examination. In addition, it is accepted to bring the newer score certificate than the application time.

 \cdot Final evaluation depends only on the score certificate (original) that applicants bring on the examination day.

 \cdot Non-Submission of the score certificate (original) on the examination day results in zero point in the section of TOEIC or TOEFL.

 \cdot If an applicant took the examination of TOEIC or TOEFL, but has not received the score certificate during the application period, the applicant may submit the copy of the score certificate as soon as he/ she receives it. In this case, the applicant must write the date of the examination that he/she took on the application form.

5. Screening Fee

Screening Fee 30,000 yen

The method of paying the screening fee is as follows;

Fill in the thick-framed boxes of the "Transfer Request Form" inserted in these guidelines correctly and clearly with a black ink pen and take it to the bank without separating the forms A, B and C, to complete the transfer procedure.

After the transfer procedure is completed, affix the "Certificate of Transfer Receipt of Kyushu University Screening Fee (Form C)" returned from the bank in the box for affixing the "Certificate of Transfer Receipt of Kyushu University Screening Fee" of the "Counterfoil of Transfer Receipt of Screening Fee", which is inserted in these guidelines. Also write the Graduate School of your choice, your address, name and contact (telephone) on the same counterfoil and submit it as an application document.

Before filling in a "Transfer Request Form" or "Counterfoil of Transfer Receipt of Screening Fee", read the cautions for filling in the forms provided at the end of these guidelines.

OTransfer via JP Bank, ATM or the Internet is not acceptable.

Transfer fee is not required if you pay via a Sumitomo Mitsui Banking Corporation main/branch office. If you use other bank, you must pay the transfer fee.

OTransfer must be made by wire only on June 20 (Mon), 2016 or later.

6. Application Period

Applications are accepted between June 23 (Thu), 2016 and July 1 (Fri), 2016 at 5 p.m. (Application documents sent by mail must be RECEIVED by July 4 (Fri) at 5 p.m.)

7. Individual Evaluation of Academic Requirements

Persons who intend to apply in accordance with qualifications (8) - (12) for the Master Course are required to take an individual evaluation of their scientific ability in relation to the Requirements for Admission before application. In this case, the necessary documents (1) - (5), (7) - (9) and (11) in section 3 should be submitted by the applicant to the Student Affairs Section, Student Affairs Division, Graduate School of Engineering, Kyushu University from June 6 (Mon), 2016 to noon, June 10 (Fri), 2016.

Announcement of the results of the evaluation: Applicants will be contacted by mail from the Chairperson of the department by June 23 (Thu), 2016.

The documents for application submitted by successful applicants are automatically accepted after the counterfoil of the transfer receipt of screening fee is accepted.

8. Application Procedure

(1) Applicants should submit or send by mail the necessary documents for the application to the Student Affairs Section, Student Affairs Division, Graduate School of Engineering, Kyushu University, within the period mentioned in Section 6.

Student Affairs Section, Student Affairs Division, Graduate School of Engineering, Kyushu University

744 Motooka, Nishi-ku, Fukuoka 819-0395, JAPAN TEL: 092-802-2724

(2) If applicants use postal mail for sending necessary documents for application, these should be sent by registered special delivery mail. "The application form for admission to the Masters Course of the Graduate School of Engineering" should be written in red on the front of the envelope.

Date	Time	Examination	Place	Remarks
August 22 (Mon) August 23 (Tue)	From 9 a.m. To 5 p.m.	Written Examination Oral Examination	Ito Campus	Details are notified by the document after the application form is accepted.
(Spare day)				

9. Date of Examination and Place

10. Examination Subjects (The examination below is done in Japanese)

I	Departments		Subjects		Remarks
	Chemistry and Biochemistry Materials process Engineering Materials Physics and Chemistry Chemical Systems and Engineering	Applicants may take the examination without choosing the department. (%1) Choose one subject reported when applied among the following 4 subjects of major groups.		Persons who want the guide book of the Depart- mental Group of Materials Science Engineering must contact either of the fol- lowing offices.	
Departments in Materials Science and Engineering		Subjects of Chemical Engineer- ing major group Subjects of Functional Materials Chemistry major group Subjects of Molecular	Mathematics, English, Ba (Chemical Thermodynamics, istry, Fundamentals of Trans ena), Specialized Subjects (C jects from among 6 subjects: action Engineering, Fluid Dy Transfer, Process Control, I of Bioengineering, Biochemi ing) English, Specialized Subj Chemistry, Inorganic Chemi Science) English, Specialized Subj Chemistry, Inorganic Chemi	Basic Chem- port Phenom- hoose 3 sub- Chemical Re- mamics, Heat Fundamentals cal Engineer- ects (Physical stry, Organic stry, Polymer ects (Physical	 Subjects of Chemical Engineering group Department Office of Chemical Engineering TEL: 092-802-2801 http://www.chem-eng.kyushu-u.ac.jp Subjects of Functional Materials Chemistry group Department Office of Applied Chemistry (Func- tion) TEL: 092-802-2893 Subjects of Molecular Systems Engineering group Department Office of Applied Chemistry (Mole- cule) TEL: 092-802-2852
		Systems Engineer- ing major group	Chemistry, Analytical Chemi Science)	stry, Polymer	 Subjects of Materials Engineering group Department Office of Materials Engineering TEL: 092-802-2985 Each Department Office will accept questions
		Subjects of Materials Engineer- ing major group	Mathematics, English, Mater ing I (Physical Chemistry of Transport Phenomena, Elec of Materials Processing, Mat Science, Solidification and Cr Materials Engineering II (Sol ics, Microstructure of Materi Materials Strength, Solid Ph mation Theory, Detailed Exp terials)	for Materials, ctrochemistry erials Surface ystal Growth), id State Phys- als, Science of ase Transfor-	about the treatment of TOEIC or TOEFL ● Refer to ☆1 in page 19.
Depa	Civil and Structural Engineering Urban and Environmental Engineering Maritime Engineering	Choose either subject reported when applied among subjects of the Civil and Urban major group or subjects of Naval Architecture and Maritime major group as follows. However, refer to (*2) in the margin.		URL http://www.doc.kyushu-u.ac.jp	
partments in Global		Subjects of the Civil and Urban major group	Basic subjects of Civil E Mathematics (Linear Algeb Differential Equation, Probab tistics), English (Only the sco or TOEFL is evaluated. Ori examination by the departme ducted.)	ora, Calculus, bility and Sta- ore of TOEIC ginal English	Department Office of Civil and Urban major group accepts the questions. TEL:092-802-3366 The information concerning the subjects of the Na- val Architecture and Maritime major group is available on the homepage http://www.nams.kyushu-u.ac.jp/exam/
Departments in Global Environmental Engineering		Subjects of the Naval Architec- ture and Maritime major group	Mathematics (Calculus, Diffe tion, Functional Theory), Hy Strength of Materials, Engli score of TOEIC or TOEFL Original English examinatio partment is not conducted), Ship and Marine Hydro- dynamics (Ship Calculations, Dynamics, Resistance and Propulsion) Structural Mechanics of Marine Structures (Strength, Vibration)	drodynamics, ish (Only the is evaluated.	graduate_exam.html Applicants, who graduated or will graduate from a department other than the Naval Architecture and Maritime group, but choose subjects from the Na- val Architecture and Maritime group can take the examination for Mechanics instead of Ship and Ma- rine Hydrodynamics and Structural Mechanics of Marine Structures. The Department Office of Maritime Engineering accepts questions on this matter. TEL : 092-802-3442 • Refer to ☆2 in page 19.

I	Departments	Subjects	Remarks
	Earth Resources Engineering	Choose 3 subjects from among Special Subjects (Eco- nomic Geology, Exploration Geophysics, Geothermics, Resources Production Engineering, Rock Engineering, Mineral Processing, Energy Resources Engineering) (Fill in option's name on the frame of option in the application form), Mathematics (Calculus Differential Equation, Com- plex Functional Theory), English (Score of TOEIC or TOEFL), Essay ¹¹ . Applicants might be exempted from the examination by the contents of their academic transcript. Applicants who are exempted will receive notification within one week after the application deadline. 1) The reason of the first choice for this department must be brought to conclusion in about 1000 characters.	 Applicants who graduated from universities other than Kyushu University may choose 3 related subjects corresponding to the subjects that you have taken. Department Office of Earth Resources Engineering accepts the questions. TEL:092-802-3310 Refer to ☆3 in page 19.
Departments in Global Environmental Engineering	Applied Quantum Physics and Nuclear Engineering	 Mathematics: (Required Subjects) Linear Algebra, Calculus, Differential Equation (elective Subjects) Choose one subject from among Complex Functional Theory or Fourier or Laplace transformation. English: Total points of the written examination and Score of TOEIC (or TOEFL). Special subject: Choose either of the following types according to the department you belong (ed) to in an undergraduate school. Applicants should register the type they want to take for the examination at the time of application. (Choose a, b, c, d in Type II) Type I: Applicants who are graduates of the Department of Energy Science and Engineering, Department of Physics systems, or Department of Nuclear Power system may choose 4 subjects from among Mechanics, Electromagnetics, Thermodynamics/Physical Chemistry, Statisti- cal Mechanics, Quantum Mechanics, Theory of Transport Phenomena, or Atomic and Nuclear Physics. Type II: Those who graduated or will graduate from the following department. II a: Mechanical systems (Mechanics, Thermody- namics, Theory of Transport Phenomena). II b: Electrical systems (Electromagnetics, Electric and Electronic Circuits, Solid State Physics) II c: Material systems (Thermodynamics, Physical Chemistry, Solid State Physics) II d: Others (Departmental Office of Applied Quan- tum Physics and Nuclear Engineering accepts questions on this matter in advance.) 	 Details of this department are provided in the website of Department of Applied Quantum Physics and Nuclear Engineering, Graduate School of Engineering. If you have any questions, contact the Department of Applied Quantum Physics and Nuclear Engineering Office. Department of Applied Quantum Physics and Nuclear Engineering Office TEL:092-802-3542 Persons who would like the guide of the Department of Quantum Physics and Nuclear Engineering must contact to Department Offices. TEL:092-802-3542 Refer to ☆4 in page 19.
Departments in Mechanical and Aerospace Engineering	Mechanical Engineering group (Mechanical Engineering Hydrogen Energy Systems	Applicants are examined without choosing the depart- ment (¥4). Mechanics of Materials, Dynamics of Machinery, Ther- mal Engineering, Fluid Mechanics, Mathematics, and English (Only the score of TOEIC or TOEFL is evalu- ated. Original English examination of each department is not conducted.)	 Department Office of Mechanical Engineering accepts the questions. TEL:092-802-3261 Refer to ☆5 in page 19.

Departments		Subjects	Remarks	
Departments in Mechanical and Aerospace I	Aeronautics and Astronautics	Mathematics Specialized subjects I (Choose 2 subjects from 4 subjects: Fluid Mechanics, Thermodynamics and Heat Transfer, Solid Mechanics, Dynamics and Control) Specialized subjects II (Choose 2 subjects from 4 sub- jects: Fluid Mechanics, Thermodynamics and Heat Transfer, Solid Mechanics, Dynamics and Control) **However, it is possible to choose the same subject in Specialized subjects I and Specialized subjects II. English (Only the score of TOEIC or TOEFL is evalu- ated. Original English examination by the department is not conducted.)	 URL http://www.aero.kyushu-u.ac.jp Refer to the homepage of the Department of Aeronautics and Astronautics. Department Office of the Department of Aeronautics and Astronautics accepts questions. TEL : 092-802-3000 Refer to ☆6 in page 19. 	
Engineering		Applicants might be exempted from the examination by the contents of their academic transcript. Subjects who are exempted will receive the notification within one week of the deadline of application.		

* 1 As to the selection of the departments in Materials Science and Engineering, the department of each examinee is decided according to the research field asigned after the result announcement

* 2 Applicants who hope to be assigned to the following research fields after entrance should take the examination of the following subjects.

1) Applicants who hope to be assigned to a program other than the research field of Production Systems Engineering in the Department of Civil and Structural Engineering must take the examination for the Civil and Urban major group. Applicants who hope to be assigned to a research field of Production Systems Engineering can take the examination of all of the subjects in every group.

2) Applicants who hope to be assigned to a program other than the research field of Function Systems Engineering in the Department of Urban and Environmental Engineering must take the examination for the Civil and Urban major group. Applicants who hope to be assigned to the research field of Functional Systems Engineering can take the examination of all of the subjects in every group.

3) Applicants who hope to be assigned to the research field of Environmental Hydraulics or Coastal Engineering, in the Department of Maritime Engineering must take the examination for the Civil and Urban major group.

- * 3 Subjects of the Civil and Urban major group^{*3}: In the basic subjects of Civil Engineering, choose 6 exam questions from among 11 exam questions of Structural Engineering (2 questions), Hydraulics (2 questions), Soil Mechanics (2 questions), Concrete Engineering (1 question), Planning Theory (2 questions), and Environmental System Engineering (2 questions). Choose and answer at least 3 questions from 6 questions in 3 subjects; Structural Engineering, Hydraulics, and Soil Mechanics
- * 4 The selection of Mechanical Engineering group is made as follows;
 - 1) The department of each examinee is decided according to the reserch field assigned at the time of result announcement.
 - 2) Examination subjects and key words are listed in the following Internet web site. URL http://www.mech.kyushu-u.ac.jp/e/exam.html

11. Announcement of the Result

On September 6 (Tue), 2016 at around 4 p.m., the results will be posted on the public notice board (at

the Student Affairs Division), Graduate School of Engineering, Kyushu University.

The results will also be sent by mail to the successful applicants.

We will not answer any inquiries by telephone concerning the results at all.

12. Entrance Date

April 1st, 2017

13. Payments on Enrollment Procedures

Admission fee: 282,000 yen Tuition fee: 267,900 yen for the one semester Annual total: 535,800 yen

(Notes) If the admission fee and tuition fee are revised, the new amounts of these fees are applied to all students.

14. Applicants with disabilities

The University provides consultation for applicants with disabilities who may require special arrangements during the entrance examinations or in classes after enrollment.

Please contact the following office (16. Contact) prior to the application process as soon as possible as it sometimes takes extra time to decide on the arrangements depending on the situation.

15. Other

- (1) If you want the applicant guidelines (application form) to be mailed, make a request to the Student Affairs Section, Student Affairs Division, Graduate School of Engineering by enclosing a selfaddressed envelope (33.2 cm × 24.0 cm) affixed with 250 yen stamp, with "Request for mailing of Applicant Guidelines for Master's Programs of the Graduate School of Engineering" written in red on the front.
- (2) After the application form is received, any change to the items written is not admitted and the Screening Fee will not be returned for any reason.
- (3) Persons who didn't receive the examination card may ask the Student Affairs Section, Student Affairs Division, Graduate School of Engineering by the very date of the examination.
- (4) Changes in the entrance exam schedule etc. are notified on the following web site. To be confirmed by each applicant.

URL http://www.eng.kyushu-u.ac.jp/

(Inquire of +81-92-802-2724 by telephone when the Internet is inaccessible.)

16. Contact Address

Student Affairs Section, Student Affairs Division, Graduate School of Engineering, Kyushu University 744 Motooka, Nishi-ku, Fukuoka

819-0395, JAPAN

TEL: +81-092-802-2724

May, 2016 Graduate School of Engineering, Kyushu University

[Points of concern on how to use score of TOEIC or TOEFL in the entrance examination]

$\gtrsim 1$ Departments in Materials Science and Engineering

[Chemical Engineering Major Group]

Only the score of TOEIC or TOEFL is evaluated. Original English examination is not conducted.

OIt is possible to submit the score certificate of both of TOEIC and TOEFL.

[Functional Materials Chemistry Major Group]

Original written examination of the department and the score of TOEFL are evaluated at a rate of 1:1.

[Molecular Systems Engineering Major Group]

Original written examination of the department and the score of TOEIC (or TOEFL) are evaluated at a rate of 4:1.

[Materials Engineering Major Group]

Only the score of TOEIC or TOEFL is evaluated. Original examination is not conducted.

Departments in Global Environmental Engineering

 $rac{1}{2}$ [Civil and Urban Major Group]

Only the score of TOEIC or TOEFL is evaluated. Original examination is not conducted.

☆2 [Naval Architecture and Maritime Major Group]
 Only the score of TOEIC or TOEFL is evaluated. Original examination is not conducted.

☆3 [Earth Resources Engineering] ○Only the score of TOEIC or TOEFL is evaluated. Original examination is not conducted.

☆4 【Applied Quantum Physics and Nuclear Engineering】

OThe applicant's English Proficiency will be evaluated by the comprehensive evaluation of the original examination by the department and the submitted score of TOEIC or TOEFL. The examination and the score of TOEIC or TOEFL are evaluated at the ratio of 1:1.

•Departments in Mechanical and Aerospace Engineering

 $\cancel{5}$ [Mechanical Engineering Group]

Only the score of TOEIC or TOEFL is evaluated in the examination of each department. Original examination of English proficiency is not conducted.

${\not \asymp} 6$ [Department of Aeronautics and Astronautics]

Only the score of TOEIC or TOEFL is evaluated. Original examination is not conducted. OIt is possible to submit two or more score certificates of TOEIC and TOEFL.

[Note] Protection of personal information in application documents

- (1) Besides for screening of applicants, personal information written in the application documents may be used as follows:
 - ① The addresses, names, etc. of the successful applicants may be used for enrollment procedures, etc.
 - ⁽²⁾ Academic records and other personal information used for screening of applicants may be used, in a form in which the individual is unidentifiable, for surveys and research concerning the screening of applicants for the Graduate School of Engineering.
- (2) Personal information included in the application documents, excluding such cases specified in Article 9 of the "Act on the Protection of Personal Information Held by Independent Administrative Agencies, etc." will not be used for any purposes other than those stated above or provided to a third party without consent of the applicant.

Specialized Research Fields of each department, Graduate School of Engineering

Departments	Specialized Research Fields	
Chemistry and Biochemistry	Applied Inorganic Chemistry, Organic Functional Molecular Chemistry, Artificial Enzyme Chemis- try, Molecular Systems Chemistry, Biomimetics, Soft Materials Chemistry, Biomedical and Bio- physical Chemistry, Quantum Materials Chemistry, Organic Photonics and Electronics, Functional Molecular Materials Engineering, Medical Materials Chemistry	
Materials Process Engineering	Reaction Controls, Physical Chemistry for Materials, Electrochemistry of Materials Processing, Composite Materials Science and Engineering, Chemical Functional Materials Engineering, Bioma- terial Engineering, Applied Materials Engineering, Crystal Plasticity & Fracture, Computational Materials Science and Engineering	
Materials Physics and Chemistry	Biomolecular System, Polymer Science, Applied Photochemistry, Functional Materials Engineering, Microstructure of Materials, Structural Materials Science and Engineering, Functional Materials Science and Engineering, Microstructure Controls of Functional Materials, Materials Characteriza- tion	
Chemical Systems and Engineering	Applied Analytical Chemistry, Chemical Environmental Engineering, Bioprocess Chemistry, Mo- lecular Information Systems, Biomolecular Engineering, Industrial Physical Chemistry, Biochemical Engineering, Heat Transfer Operation, Fluid Operation, Process System Engineering, Bio-interface Engineering	
Civil and Structural Engineering	Concrete Engineering, Structural Analysis, Earthquake Engineering, Geotechnical Engineering, Geo-Disaster Prevention Engineering, Environmental Geotechnology, Fracture, Welding Mechanics and Production Systems	
Urban and Environmental Engineering	Urban and Transportation Planning, Planning and Management of Urban Systems, Urban Engi- neering and Economics, Structural and Aesthetic Design, Urban and Environmental Engineering, Watershed Management Engineering, Environmental Systems Analysis and Control Engineering, Urban Hydrologic Environmental Engineering, Environmental Planning and Design, Ecological En- gineering, Functional Design of Marine Systems	
Maritime Engineering	Planning of Marine Systems, Marine Hydrodynamics, Marine Dynamics and Control, Structural De- sign of Marine Systems, Ship Design and Maritime Intelligence Technology, Environmental Fluid Dynamics, Coastal and Ocean Engineering	
Earth Resources Engineering	Economical Geology, Exploration Physics, Geothermics, Resources Production and Safety Engineer- ing, Rock Engineering and Mining Machinery, Mineral Processing Recycling:Environmental Resto- ration Engineering, Energy Resources Engineering	
Applied Quantum Physics and Nuclear Engineering	Nucleus Elementary Particle Physics, Quantum Radiation Measurement, Accelerator Science, New Energy Systems of Accelerator Driving, Applied Basic Science of Medical Beam, Effects of Irradia- tion, Nanomaterial, Transmission Electron Microscopy Analysis, Metal-Ceramic Materials, Syn- chrotron Beam and Quantum Beam Utility, Structural Properties, Functional Materials Serviceable for Resource Recovering and Environment Purification, Nuclear Fuel, Treatment and Disposal of Radioactive Waste, Nuclear Safety Engineering, Thermal Hydraulic Engineering, Computational Science and Technology, Nuclear Reactor-Nuclear Fusion Reactor, Plasma, Transport Phenomena, Energy Utility, Safety Systems, Nonlinear Physics, Applied Physical Properties, Applied Measure- ment, Complex Systems Science, Strongly Correlated Systems Physics, ExtremePhysics, Quantum Phenomena in Nanosystems, Surface Physics, Crystal Growth, Optical and Electronic Properties	
Mechanical Engineering	Solid Mechanics, Structural Materials Research, Flow Control Systems, Fluids Engineering Science, Heat and Mass Transfer, Thermal Energy Conversion, Reactive Gas Dynamics, Engine Systems, Vibration and Acoustics, Mechanical Vibration, Structural Dynamics, System Engineering, Control Engineering, Precision Machining, Material Processing, Machine Elements and Design Engineering, Biofunctional Engineering, Bio medical Fluid Engineering, Human-Centered Robotics, Hydrogen Compatible Materials and Fracture	
Hydrogen Energy Systems	Solid Mechanics, Hydrogen Utilization Processes, Fuel Cell Systems, Fatigue and Fracture of Mate- rials, Tribology, Thermofluid Physics, Reactive Gas Dynamics, Advanced Hydrogen Materials, Hy- drogen Production Processes, Advanced Hydrogen Energy System	
Aeronautics and Astronautics	Aerospace Propulsion, Fluid Mechanics, Aerospace Applied Physics, Strength and Vibration, Aero- space Structural Systems, Guidance and Control, Flight Dynamics, Space Systems Dynamics, Space Transportation Systems Engineering, Space Utilization Science and Technology, Heterogeneous Solid Mechanics, Wind Engineering, Nano-mechanics	