

Graduate School of Engineering,  
Nagasaki University  
Master's Degree  
Application Guidelines

2017, April Entrance  
(November Application)

Water and Environmental  
Engineering Program

**Entrance Examinations for  
International Students**

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# Graduate School of Engineering, Nagasaki University

## Master's Degree Department of Advanced Engineering

### Admission Policy

#### **1. Educational Philosophy and Aim**

The Graduate School of Engineering, Department of Advanced Engineering has an educational aim with the fundamental principles of "As an engineering education and research base that contributes to the development of the technological society in coexistence with nature, we foster engineers who can flourish globally by acquiring highly specialized practical skills and promote original research to create a variety of intellectual values." Accepting graduates from the Schools of Engineering, our education aim is therefore to train highly specialized engineers and researchers with high internationality to meet the demand of industries and society.

The characteristics of the educational content in order to achieve our goals are as follows;

1. Acquirement of interdisciplinary knowledge, a wide range of deep expertise, excellent English presentation ability, research ability, and technological creativity is targeted.
2. By organizing one major with seven programs (Mechanical Engineering, Electrical and Electronic Engineering, Computer and Information Science, Structural Engineering, Civil and Environmental Engineering, Chemistry and Materials Engineering, and International Water Environmental Engineering) to be able to respond rapidly to the demand of industry and society, realization of education with emphasis on the foundation of professional education and training of human resources through an education system that combines the expertise of highly specialized courses are aimed.
3. Establishment of coherent connection of educational program through the Bachelor Degree Program and this Master's Degree Program to foster researchers and advanced technical experts and engineers who fit the foundation of the international industrial field is made.

#### **2. Desirable Students**

We seek highly enterprising students with a clear understanding of our fundamental principles, educational goals, and educational contents, having a sense of purpose to acquire a robust basic knowledge and academic skills of each discipline and to put them to practical use, as well as having a strong willingness to develop advanced skills and knowledge and to carry out research.

#### **3. The Basic Policy of Admission Screening**

We evaluate various aspects of each applicant through a general entrance examination, recommendation-based admission examination, and entrance examination for international students as part of the thorough process of selecting suitable applicants.

#### **4. Screening Method**

##### **【Entrance Examination for International Students】**

An interview and an oral examination are given to non-Japanese Students, excluding permanent residents.

## 1. Number of Students to be Admitted

Field	Course	Number of Students to be Admitted
Department of Advanced Engineering	International Water Environmental Engineering Program	10

(Note) The number includes students admitted through General Entrance Examination.

## 2. Eligibility for Application

Non-Japanese citizens, excluding foreigners with permanent residence permit, must fulfill all of the following requirements stated in (1), (2) and (3).

(1) A person who falls under one of the following requirements:

- ① Those who have completed (or will complete by March, 2017) 16 years of standard school education in countries other than Japan.
- ② Those who have completed (or will complete by March, 2017) 16 years of standard school education, in Japan, through the completion of required correspondence courses, conducted by authorized school outside of Japan.
- ③ Those who have completed (or will complete by March, 2017) 16 years of standard school education after completing postgraduate courses at the foreign education institutes in Japan, recognized by the Ministry of Education, Culture, Sports, Science and Technology.
- ④ Those who have an academic degree equivalent to or higher than Bachelor's Degree approved by this graduate school through individual preliminary screening, and will be at least 22 years of age by March 31, 2017. (Refer to "3. Eligibility Preliminary Screening")

(2) A person with an outstanding character for whom the dean or the head of the applicant's university or the university he/she graduated from (school, department, or graduate program) can take responsibility as his/her recommendation referrer, and one who can commit to the Graduate School of Engineering, Nagasaki University if selected.

(3) A person who lives outside of Japan at the time of application.

### 3. Eligibility Preliminary Screening

- (1) Candidates applying under the “Application Requirements (1)④” must submit the following documents to the Student Administration Office, Graduate School of Engineering by August 26, 2016 (Fri).

Submission Documents	Note
Certificate of Graduation / Expected Graduation	Issued under the authority of the president of the university where applicant graduated from.
Official Transcript	Issued and officially sealed under the authority of the president of the university where applicant graduated from.
Application for Preliminary Screening	Prescribed Application Form by this graduate school
Application Form	Prescribed Application Form by this graduate school
Certificate of Research Career	Prescribed certification form by this graduate school and verified by the head of the institution.
Outline of Research Content	Prescribed form by this graduate school

(\*) Prescribed Application Form is available for downloading from the home page “The Graduate School of Engineering, Nagasaki University”

(URL : [http://www.eng.nagasaki-u.ac.jp/contents/07\\_03\\_01.html](http://www.eng.nagasaki-u.ac.jp/contents/07_03_01.html))

- (2) The results of Eligibility Preliminary Screening will be sent to candidates by September 15, 2016 (Thu). Those who are deemed eligible for application must follow the procedures set out in “4. Application Period” and “5. Application Procedures”.

### 4. Period of Application

From Monday, October 3, 2016 to Friday, October 7, 2016

In principle, all of the following application documents must be scanned and converted to a PDF file and sent to the address stated below via email by the deadline.

The original must be posted by registered express mail.

[Submission Documents]

- Application Form(designated by the Graduate School of Engineering)
- Photo Card / Admission Ticket / Payment Certificate for the Entrance Examination Fee (designated by the Graduate School of Engineering)
- Graduation Certificate / Expected Graduation Certificate
- Official Transcript
- Letter of Recommendation(No specific form)

Postal Address: Student Affairs Division of Graduate School of Engineering

Bunkyo District Affairs, Nagasaki University

1-14 Bunkyo, Nagasaki 852-8521, Japan

Email Address: [seisan\\_daigakuin@ml.nagasaki-u.ac.jp](mailto:seisan_daigakuin@ml.nagasaki-u.ac.jp)

## 5. Application Procedure

Applicants must submit the following documents by the deadline.

Submission Documents	Note																
Application Form (designated by the Graduate School of Engineering)	Circle the elected subject. Except for those already submitted for the eligibility preliminary screening.																
Photo Card / Admission Ticket / Payment Certificate for the Entrance Examination Fee (designated by the Graduate School of Engineering)																	
Graduation Certificate / Expected Graduation Certificate	Issued under the authority of the president of the university where applicant graduated from or is expected to graduate from. Except for those already submitted for the eligibility preliminary screening.																
Official Transcript	Issued under the authority of the president of the university where applicant graduated from or is expected to graduate from. Except for those already submitted for the eligibility preliminary screening.																
Entrance Examination Fee ¥30,000	<p><b>( Payment Period )</b> From Monday, October 3, 2016 to Friday, October 7, 2016</p> <p><b>(Payment Places)</b> At the counter in any bank</p> <p><b>(Payment Method)</b> Payment from outside of Japan shall be made by Telegraphic Transfer. Applicants must transfer the fee into the designated bank account below and submit a receipt or statement attached with the other application documents. Additional transfer fees shall be borne by the applicants. (Please ensure that the payment amount should not be insufficient due to additional fees or currency exchange rate.) The box “Purpose of Remittance” should be filled in as “Screening Fee”. Also the box “Message to payee” should be filled in with the applicant’s name, nationality and name of the applying graduate school.</p> <table border="1"> <tr> <td>Entrance Examination Fee</td><td>¥30,000</td></tr> <tr> <td>Name of the Bank</td><td>THE EIGHTEENTH BANK,LTD</td></tr> <tr> <td>Name of the Branch</td><td>OHASHI BRANCH</td></tr> <tr> <td>Address of the Bank</td><td>8-28,Ohashi-machi,Nagasaki-shi, Nagasaki, JAPAN</td></tr> <tr> <td>Deposit</td><td>Ordinary</td></tr> <tr> <td>Account Number</td><td>191-01-226702 (branch code-deposit code-account number)</td></tr> <tr> <td>Account Holder</td><td>Nagasaki University</td></tr> <tr> <td>SWIFT CODE</td><td>EITNJPJT</td></tr> </table> <p><b>(Important Notice for your application)</b> Application will not be accepted if the payment for the Entrance Examination has not been made. The Entrance Examination Fee is not refundable for any reason. The Entrance Examination Fee is not refundable except for the following circumstances. The applicant has made the payment but did not apply (Either did not submit the application or the application was refused), or accidentally made the payment twice. Request for the refund must be made within 14 days from the last day of the application period.</p>	Entrance Examination Fee	¥30,000	Name of the Bank	THE EIGHTEENTH BANK,LTD	Name of the Branch	OHASHI BRANCH	Address of the Bank	8-28,Ohashi-machi,Nagasaki-shi, Nagasaki, JAPAN	Deposit	Ordinary	Account Number	191-01-226702 (branch code-deposit code-account number)	Account Holder	Nagasaki University	SWIFT CODE	EITNJPJT
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Deposit	Ordinary																
Account Number	191-01-226702 (branch code-deposit code-account number)																
Account Holder	Nagasaki University																
SWIFT CODE	EITNJPJT																
Letter of Recommendation (No specific form )	Written by the dean or head of the applicant’s university or the university he/she graduated from (School, Department, or Graduate program).																

(\*) Prescribed Application Form is available for downloading from the home page “The Graduate School of Engineering, Nagasaki University”

(URL : [http://www.eng.nagasaki-u.ac.jp/contents/07\\_03\\_01.html](http://www.eng.nagasaki-u.ac.jp/contents/07_03_01.html))

## 6. Application Precautions

- (1) Changes to the content of applications are not permitted once application procedures have been completed.
- (2) Application documents shall not be returned for any reason.

## 7. Methods of Selection

Enrollees are selected through an interview and an oral examination.

Questions are to be given and answered in English.

### (1) Examination Date and Time

(designated by the Graduate School of Engineering during the following period)

From Monday, October 31, 2016 to Tuesday, November 9, 2016

### (2) Examination Venue

At the applicant's university or other places designated by the Graduate School of Engineering

### (3) Criteria for Acceptance

Interviews and oral examinations are evaluated using the following methods and successful applicants of each course are selected respectively in the order of their total scores. However, applicants must score a minimum of 60 points.

#### [Method of Evaluation]

Individual interviews are held by multiple examiners. ① and ② below are added to give scores of up to a maximum 100 points. Prior to the examination, materials will be prepared for interviews and oral examinations.

- ① Applicants are asked questions in reference to their application documents and are evaluated on topics such as motives behind application, motivation to study, general knowledge, and social skills (allocation of 30 points).
- ② Applicants are evaluated on such things as basic academic ability and-specialized knowledge in regard to (a) and (b) for oral examination (allocation of 70 points).
  - (a) Basic Academic Ability : Applicants are evaluated on their basic academic ability in subjects such as English and mathematics, as well as one of the following subjects: physics, chemistry or biology. The chart below indicates the scope of the examination of each subject.

Subject	Scope of the Examination
Mathematics	1) Differential and Integration (including Differential Equation) 2) Linear Algebras (including Vector Calculus) 3) Fourier Series 4) Probability
Physics	1) Dynamics of Particles and Systems 2) Rigid-Body Dynamics 3) Fluid Dynamics
Chemistry	1) Basic Chemistry: Basics of Inorganic Chemistry (atomic structure, molecular structure, solution chemistry) Basics of Organic Chemistry (molecular structure, chemical reaction, isolation and purification) 2) Physical Chemistry (state of matter and phase transition, properties of solutions and phase equilibrium)
Biology	1) Basic Biology (structures and functions of the cell, elementary molecular biology and genetics) 2) Basic Microbiology related to water treatment and water environment (basic knowledge on the microorganisms in water environment, growth of microorganisms, food chain and interaction)

- (b) Specialized Knowledge : Applicants are evaluated on their specialized knowledge of water environmental issues, water resources, and water use.

#### ③ Use of Internet

Internet may be used for interviews and oral examinations.

(More detailed notification will be given to each applicant respectively.)

## 8. Announcement of Successful Applicants

Friday, November 25, 2016 10:00 (JST)

- ※ **Successful applicants will receive the notification of acceptance in PDF format via Email and an original posted later.**
- ※ A list of successful applicants will be made available on the Nagasaki University Graduate School of Engineering website from 10:00 on the same day.  
The website address will be notified separately.
- ※ Results are not declared over the telephone.

## 9. Notes on the Examination

- (1) Applicants from distant areas need to plan the trip carefully in consideration of possibilities of the inconveniences caused by the weather conditions.
- (2) No supplementary examination will be available. However, re-examination may be conducted in case of unforeseen circumstances.
- (3) Applicants must bring the Admission Ticket issued by the Graduate School of Engineering on the day of the examination.
- (4) Applicants must be at the designated rendezvous point 20 minutes before examination starts. (Latecomers will not be permitted to take the examination.)
- (5) All cellular phones must be turned off before entering the examination room.

## 10. Enrollment Procedures

Successful applicants must follow the enrollment procedures outlined below. More details will be notified in late February, 2017.

### (1) Procedures Period

From Wednesday, March 8, 2017 to Friday, March 10, 2017

- ※ The schedule of enrollment procedures may change if there is a time conflict with one's program schedule.

### (2) Payment of Fees

Enrollment Fee . . . . . ¥282,000

(Note) Enrollment fees shall not be refunded once paid.

[Additional Information]

- ① Tuition Fee for 2014 (Annually): ¥535,800  
(The first semester ¥267,900 / The second semester ¥267,900)
- ② Payment periods for the tuition fee will be as follows.  
The first semester: April  
The second semester: October
- ③ If the tuition fee has been changed, the new tuition fee will apply from the date of revision.
- ④ The Exemption or deferment of enrollment fee and tuition fee will be available.  
※ Details will be enclosed with the procedural documents to successful applicants.



## **11. Reopened Recruitment**

If successful candidates do not meet the number of accepting candidates, recruitment may be opened. Please contact the Student Affairs Division of Graduate School of Engineering, Bunkyo District Affairs for recruitment availability for additional candidates.

## **12. Handling of Personal Information**

- (1) Obtained personal information is used for selecting enrollees. The personal information of successful applicants and enrollees are used for enrollment procedures, and the student registration.
- (2) The grades of the entrance examination and other personal information are used as the references for the recommendation of the 1st year scholarship students, as well as for the selection of the applicants for exemption of entrance fee and tuition fee.
- (3) Obtained personal information for the selection of enrollee and for the entrance examinations are also used in statistical surveys and research related to the selection of enrollees.
- (4) Obtained personal information for the selection of enrollee and for the entrance examinations are not used for the purposes other than the purposes mentioned above nor to provide to the third parties, except the case as provided in Article 9 of "Act on the Protection of Personal Information Held by Independent Administrative Agencies".

## **13. For Applicants Requiring Disability-related Accommodations**

Applicants with disabilities who require assistance or special care with their entrance examination as well as attending classes may consult with the Student Affairs Division of Graduate School of Engineering. The application (No specific form) should include the following information and be submitted along with a medical certificate by September 30, 2016. Applicants will never be negatively affected in the screening process by the results of an advance consultation. If necessary, an interview may be held with the applicant or the spokesperson from the university where the applicant received his/her last degree. Failing to apply in advance may result in no assistance provided.

The necessary information described on the application form

- (1) Category of the Entrance Examination and the name of the course applied for
- (2) Type and condition of disability(ies)
- (3) Description of assistance request with the entrance examination
- (4) Description of the assistance request after enrollment
- (5) The assistance service(s) received at the former academic institute
- (6) Additional information
- (7) Applicant's Name, Address, and Contact Phone Number (FAX Number)

☆Nagasaki University Student Accessibility Office will support students and applicants with disabilities.

## **14. Security Export Control**

Nagasaki University performs the security export control based on "Foreign Exchange and Foreign Trade Act " so that education and study contents to foreign students do not obstruct maintenance of international peace and the security. Please thereby note it because the applicants may demand the change of education and study contents to hope for. In addition, please inquire for the details of each department.

## Curriculum Policy

By providing an educational program to cultivate researchers and advanced technical experts and engineers who fit the foundation of the international industrial field, we aim to foster interdisciplinary knowledge, a wide range of deep expertise, technological creativity, presentation ability and enterprising spirit.

To achieve this goal, our curriculum has seven programs including Mechanical Engineering, Electrical and Electronic Engineering, Computer and Information Science, Structural Engineering, Civil and Environmental Engineering, Chemistry and Materials Engineering and International Water Environmental Engineering. The following three classes are offered throughout the programs:

- “Advanced basic class” to study mathematics, physics and simulation
- “Practical English class” to improve English communication skills
- “Practical class for engineers and researchers” to acquire knowledge of industry, intellectual property and environment as well as to develop social skills

Also each program offers the following two classes respectively:

- “Individual specialized class” to acquire basic knowledge and practical skill of the specialized fields
- “Advanced specialized class” to acquire interdisciplinary knowledge and technological creativity

## Diploma Policy

The Graduate School of Engineering, Department of Advanced Engineering has an educational aim with the fundamental principles of "As an engineering education and research base that contributes to the development of the technological society in coexistence with nature, we foster engineers who can flourish globally by acquiring highly specialized practical skills and promoting original research to create a variety of intellectual values." and trains highly specialized engineers and researchers to meet the demand of industries and society. Therefore, we will confer a degree on those who meet the criteria of possessing interdisciplinary knowledge, practical skills in the specialized fields, technological creativity and problem-solving skills.

## Research Focus of the Water and Environmental Engineering Program

Program	Research Focus
Water and Environmental Engineering	<ul style="list-style-type: none"><li>• Molecular ecological analysis of toxic cyanobacterium (blue-green algae) found in eutrophicated lakes or ponds</li><li>• Research development of water clarification system utilizable in Africa (i.e. Kenya) and South-East Asia</li><li>• Investigative research for developing aqua health networks</li><li>• Membrane fouling research</li><li>• Numerical analysis on characteristic of flow currents and water quality dynamics in Lake Victoria, Kenya</li><li>• Fundamental research on dynamics of mercury pollution in Minamata Bay</li></ul>