



# **Kanazawa University**

## **Graduate School of Natural Science and Technology**

### **(Master's Level Section)**

#### **“Environmental Technology International Course”**

#### **Applicant Guidelines for International Students (October 2017)**

##### **Application Outline for Admission**

The Graduate School of Natural Science and Technology, Kanazawa University, has established the Environmental Technology International Course in October 2014 in order to train researchers and technical experts (environmental engineers) with specialized knowledge and skills in the field of environmental technology to support the sustainable development of the society. The new course is designed in an interdisciplinary fashion across the Master's courses in the Divisions of Material Chemistry (Applied Chemistry Course), Mechanical Science and Engineering (Environment and Human-related Mechanical Systems Course), Environmental Design and Natural System (Chemical Engineering Course), and aims to train human resources who can play a main role in recycling resources and reducing environmental burden without being obstructed by national borders.

Environmental engineers who can contribute to the global society are expected to be equipped with not only the advanced knowledge and skills of environmental engineering but also the ability to propose and design the skills and processes that are in harmony with the regional society and the understanding of regional cultures and history. This course will train individuals who can contribute to the global society by providing education on (1) advanced knowledge and skills on environmental engineering, (2) advanced communications skills for collaborating with engineers from other nations and to understand the historical and cultural background of the regional residents who will be the users of the environmental technology, and (3) the leadership to propose the appropriate skills and processes for each regional circumstances surrounding the environmental problems that occur across national borders. Moreover, the course will nurture individuals who will act as a bridge with Japan at the site of research and technological development in the fields of environment and energy and who will contribute to the sustainable development of the society through cooperation across national borders.

## 1. SCHEDULE

| Date  | Details   |
|---|---|
| November 11 ~November 17, 2016<br>Japan time: 17 : 00     | Application Period                              |
| Late of November – Beginning of December, 2016(tentative) | Notification of schedule on an Oral Examination |
| Beginning to middle of December, 2016 (tentative)         | Oral Examination                                |
| Middle of January, 2017 (tentative)                       | Notification of Results                         |
| October 1, 2017   | Admission                                       |

## 2. QUALIFICATIONS

### ●The number of students to be admitted

※ International students: Total 16 students\*

| Category  | Number of applicants accepted |
|---|-------------------------------|
| International students<br>(special quota) *     | 8*                            |
| International students<br>(self-financed quota) | 8*                            |

※ Out of all successful candidates, those who rank among the top 8 examinees\* in result of the entrance exam will be accounted as the candidates in special quota. In case a successful candidate in the quota declined the admission, a self-financed international student will move up to fill the special quota in order of exam result. The students in special quota will be exempted from the payment of both admission fee and tuition fee.

※ 5 students\* out of the top 8 successful candidates will be recommended as international students of special quota to the Ministry of Education, Culture, Sports, Science and Technology in Japan. Those five students will be selected by overall consideration.

\*The number is subject to change.

### ●Divisions offered

- 1) Division of Material Chemistry (Applied Chemistry Course)
- 2) Division of Mechanical Science and Engineering (Environment and Human related Mechanical Systems Course)
- 3) Division of Environmental Design
- 4) Division of Natural System (Chemical Engineering Course)

●**Field of Study**

Environmental engineering fields (atmospheric environment, water environment, soil environment, waste management, etc.) and energy technology

●**Research field and supervisor**

Please select your intended field of specialization at Kanazawa University, and your preference for Supervisor.

For the professors who can accept students in this course, please refer to the Appendix.

Prior to application, applicants must contact their preferred supervisors directly via email in order to discuss the possibility of studying under their guidance. Then, applicants must receive a letter of acceptance from prospective supervisor. Note that we cannot accept the application without the letter of acceptance from prospective supervisor.

Reference URL:

●**Age**

Applicant must have been born on or after April 2, 1982.

●**Academic Background**

Applicant must have graduated or will graduate from a Japanese university by September 30, 2017. Applicant will be deemed to have academic ability equal or superior to that of a Japanese university graduate, if he/she

[1]has completed or will complete by September 30, 2017 a 16-year school curriculum in a foreign country.

[2] is or will be age 22 by September 30, 2017 or older and has taken an individual entrance qualification examination and has been judged by a graduate school as being equal or superior in academic ability to a university graduate.

Note: Eligible applicants include those who otherwise satisfy or will satisfy the qualification requirements by September 30, 2017 for admission to a Japanese graduate school.

●**Academic Record**

Eligible applicants must have GPA (Grade Point Average) of 2.3 or higher over the previous two years.

If an applicant's university employs the semester system and grades obtained in

the last semester have been notified, GPA shall be calculated from the results within last 2 years.

**Method to Determine GPA**

|               |         | Grade Point |        |         |       |
|---------------|---------|-------------|--------|---------|-------|
| 4-point scale |         | Excellent   | Good   | Average | Fail  |
| 4-point scale |         | A           | B      | C       | F     |
| 4-point scale |         | 80~100%     | 70~79% | 60~69%  | 0~59% |
| 5-point scale | S       | A           | B      | C       | F     |
| 5-point scale | A       | B           | C      | D       | F     |
| 5-point scale | 90~100% | 80~89%      | 70~79% | 60~69%  | 0~59% |
| Point value   | 3       | 3           | 2      | 1       | 0     |

$(\text{number of 3 point grades}) \times 3 + (\text{number of 2 point grades}) \times 2 + (\text{number of 1 point grades}) \times 1 + (\text{number of 0 point grades}) \times 0$   
 Total number of grades (including those with a value of 0)

●**Health**

Applicant must be physically and mentally fit to pursue the study at university.

●**Arrival in Japan**

Applicant is able to leave for and arrive in Japan within two weeks of October 1, 2017.

●**Visa Requirement**

Selected applicants must obtain a College Student (ryugaku) visa from the Japanese consulate general in the country of their nationality.

●**Other**

Any applicants who meet any or all of the following conditions are not eligible:

- [1] Applicant is an active member of the military or a civilian employed by the military at the time the school period is due to begin.
- [2] Applicant is unable to travel to Japan within the dates set by Kanazawa University.

**3. APPLICATION PROCEDURES AND SELECTION**

(1) Application Procedure

●**Submit documents**

Applicants must submit the following PDF documents to the Student Affairs Division, Graduate School of Natural Science and Technology, Kanazawa University **as email attachment** by the deadline.

Applicants must submit the original copy of these documents once admission is determined. Please keep originals with you until then.

**Application Period and E-mail address for submission**

Application Period: November 11, 2016 (Fri) ~ November 17, 2016 (Thu) by Japan time: 17:00

Email address: [eticku@adm.kanazawa-u.ac.jp](mailto:eticku@adm.kanazawa-u.ac.jp)

HP: <http://www.nst.kanazawa-u.ac.jp/etic/english/>

(Academic Affairs Section, Student Affairs Division, Graduate School of Natural Science and Technology, Kanazawa University)

**Note:**

After applicants submit the application forms to us, we will e-mail to each applicant in order to inform him/her that we received them certainly.

Please be sure to make inquiries to us, in the case that you don't receive any notice from us a couple of days after your application.

If applicants find it difficult to send documents to us because of exceeds size or any other reasons please split them into several files and send them separately.

**Required Documents** \*Forms will be attached to the final applicant guidelines.

- 1) Application Checklist (form1)
- 2) Application Form (form2)
- 3) Field of Study and Study plan form (form3)
- 4) Statement of purpose (form4)
- 5) Recommendation from the president or the head of a department of the last university attended
- 6) Academic transcript of each academic year of the last university attended (issued by the same university)
- 7) Graduation certificate or degree certificate of the last university attended (or an attested document certifying that the application will graduate from the school, where applicable)
- 8) Students Registration Certificate (for current students)
- 9) Summary of Graduation Thesis, etc. (free format, 2-3 A4 sized pages)
- 10) Short Essay (form5)
- 11) Official Certificate of TOEIC or TOEFL-iBT or TOEIC-PBT (if you have).
- 12) Letter of Acceptance from Prospective Supervisor (form6)

\*Above documents must be written in either Japanese or English. A document written in any other language must accompany a Japanese or English translation.

\*Photographs to be pasted on the application must be of upper body, uncapped, full-faced, and solid-color background.

\*Applicant should clearly describe his/her research program on Field of Study and Study plan form because it will serve as important materials for placement of the applicant at a university.

\*The academic transcripts of the last university attended must show the

grade scale applied and the grades earned by the application on all the subjects studied for each year. (A degree certificate or a graduation certificate simply showing the ranking of the applicant at graduation will not substitute for academic transcripts.)

\*For abstracts of the theses, abstracts of the graduation thesis and presented papers will suffice. Please note that these abstracts will be used as basic data for evaluation of the applicant's academic ability.

## (2) Examination

### 1. Screening Method

Selection will be based on the results of an Oral Examination and the screening of the submitted documents.

Date of Oral Examination: about the beginning to middle of December 2016 (tentative)

Venue of Oral Examination: It will be announced later.

### 2. Announcement of Results

Date: the middle of January 2017 (tentative)

\*The results will be notified by e-mail and document.

## 4. SCHOOL FEE

### (1) Fees

For the international student who passes the exam as a student of special quota, examination fee, admission fee, and tuition fee will be waived.

For the international student who passes as a student of self-financed quota, examination fee will be waived, but admission fee and tuition fee need to be submitted.

Admission fee: 282,000JPY

Tuition fee (Annually): 535,800JPY

(First semester: 267,900JPY / Second semester: 267,900JPY)

\*If amendment of admission fee and tuition fee takes place, the new fee will apply from the date of revision.

### (2) Admission Fee Exemption

Successful applicant who passes the examination as a self-financed student is eligible to apply for admission fee exemption (full or half), if he/she meets the following conditions of (1) or (2). Please inquire the details after being selected.

① Applicant who has financial difficulties in paying the admission fee and has exemplary academic records.

- ②Applicant who faces significant difficulty in paying admission fee due to a loss of his/her financial supporter within a year from enrollment or to wind and flood damages brought upon the student or his/her financial supporter.

Additional details are available from the contact information below.

Student Support Division, Kakuma-machi, Kanazawa City, Ishikawa, JAPAN  
920-1192 TEL 076-264-5164

(3)Tuition Fee Exemption

Successful applicant who passes the examination as a self-financed student is eligible to apply for tuition exemption (full or half), if he/she meets the following conditions of (1) or (2). Please inquire the details after being selected.

- ①Applicant who has financial difficulties in paying the tuition fee and has exemplary academic records.

- ②Applicant or student who faces significant difficulty in paying tuition fee either due to a loss of his/her financial supporter within a year from enrollment or to wind and flood damages brought upon the student or his/her financial supporter.

Additional details of this information are available from the contact information below.

Student Support Division, Kakuma-machi, Kanazawa City, Ishikawa, JAPAN  
920-1192 TEL 076-264-5164

## 5. SCHOLARSHIP FOR JAPANESE GOVERNMENT (MEXT) SCHOLSRSHIP STUDENTS

144,000 yen per month. (In case that the recipient research in a designated region, 2,000 or 3,000 yen per month will be added. The monetary amount each year may be subject to change due to budgetary reasons.) The scholarship is cancelled in principle if the recipient is absent from the university for an extended period. The scholarship will be also cancelled in principle in the following situations. If the recipient has been receiving the scholarship despite his/her falling under any of the following situations, the recipient will be ordered to return the amount of scholarship that he/she received during the period wherein he/she was involved with any of the following situations.

- ① The recipient is determined to have made a false  
② The recipient violates any article of his/her pledge to the Minister of Education, Culture, Sports, Science and Technology;

- ③ The recipient is expelled from Kanazawa University or receives other punishment, or is removed from enrollment;
- ④ It has been determined that it will be impossible for the recipient to complete the training course within the standard time period because of poor academic grades or suspension from Kanazawa University;
- ⑤ The recipient's residence status has changed to one other than College Student as defined in the Appended Table I-4 of the Immigration Act;
- ⑥ The recipient has received a scholarship from another institution (excluding those specified for research expenditures).
- ⑦ If he/she proceeds to a more advanced level of education without receiving approval for an extension of the specific period of the scholarship.
- ⑧ The recipient drops out from Kanazawa University or transfers to another graduate school.

## 6. SCHOLARSHIP OF KANAZAWA UNIVERSITY

Kanazawa University provides the following two types of scholarship programs for International students. The recipients will be determined by screening of the applicants.

### ■Start-up Scholarship of Acanthus Support System

Eligibility: 1)Past participants of short-term exchange programs (excluding past Research Students and those who attended regular courses) at Kanazawa University who was issued a student ID number and entered the university again as degree students.

2)Past participants of short-term programs at Kanazawa University which were organized by Kanazawa University or international partner universities who entered the university again as degree students.

\*Only for students newly enrolled

Multiple benefits: The scholarship can be combined with other scholarships. However, it cannot be combined if the other scholarship does not allow multiple benefits.

Grant amount: Maximum 250,000 yen

Award payment duration: Grant shall be given one time during enrollment period.

### ■[Kanazawa University Foundation] Top Global University Study Grant for Privately Financed International Student

Eligibility: Privately financed foreign students who enroll at Kanazawa University more than one year and are excellent in both academics and personality.

\*Only for students newly enrolled this academic year

Multiple benefits: The scholarship can be combined with other scholarships. However, it cannot be combined if the other scholarship does not



allow multiple benefits.

Grant amount: 180,000 yen per year or 90,000 yen per semester. It depends on enrollment period at Kanazawa University.

Award payment duration: Minimum years required for graduation of the schools/courses to which the grantee belongs at the time of application.

NOTICE: About the scholarship, contents may be changed.

For more information, please refer to the following website.

<http://www.adm.kanazawa-u.ac.jp/ie/e/abroad/scholarship.html>

## 7. OTHER SCHOLARSHIP PROGRAMS

For more information, please refer to the following website.

<http://www.adm.kanazawa-u.ac.jp/ie/e/abroad/scholarship.html>

## 8. NOTES

- (1) Each applicant is advised to learn the Japanese language and to acquire some information on Japanese weather, climate, customs, university education, and conditions in Japan, as well as about the difference between the Japanese legal system and that of his/her home country before departing for Japan.
- (2) The successful applicant should bring approximately 250,000JPY or the equivalent to cover the immediate needs after arrival in Japan (rent of apartment, insurance, etc.). For Self-Financed student, admission fee and tuition fee must be arranged in addition.  
Moreover, submission of the deposit balance proof of about 1,000,000JPY might be requested at a state to issue a student visa.
- (3) If you are granted or will be granted any scholarship while you stay in Japan including MONBUKAGAKUSHO scholarship, government of your country and etc., please make sure to fill in the name of scholarship field in the application form in advance.  
If you fail to provide us with related information, you might be categorized as a self-financed international student, even though you pass the exam as an international student with scholarship.
- (4) Additional details of this program are available from the contact information below.



Academic Affairs Section, Student Affairs Division,  
Science and Engineering Administration Department,  
Graduate School of Natural Science and Technology, Kanazawa  
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Kakuma-machi, Kanazawa City, Ishikawa, JAPAN 920-1192  
Phone: +81-76-234-6853 Fax: +81-76-234-6844  
<http://www.nst.kanazawa-u.ac.jp/etic/>  
E-mail: [etic@adm.kanazawa-u.ac.jp](mailto:etic@adm.kanazawa-u.ac.jp)

# Environmental Technology International Course

## Instructors and Research

### Division of material chemistry

| Name                             | Position            | Research Field  |
|----------------------------------|---------------------|---|
| <a href="#">Hiroshi Hasegawa</a> | Professor           | Hydrosphere chemistry, environmental chemistry, remediation technology, toxic Metals, rare metals                         |
| <a href="#">Akio Ohta</a>        | Associate Professor | Physical chemistry of interfaces, surfactant science, amino acid-type surfactants, surfactants, biomaterials, calorimetry |
| <a href="#">Teruya Maki</a>      | Associate Professor | Analytical chemistry, bioaerosols, environmental chemicals phytoplankton  |
| <a href="#">Tetsuya Taima</a>    | Associate Professor | Organic photovoltaic cell, perovskite solar cell, molecular orientation control   |

### Division of mechanical science and engineering

| Name                        | Position            | Research Field   |
|-----------------------------|---------------------|--|
| <a href="#">Akio Kodama</a> | Professor           | Adsorption, gas separation, desiccant cooling, air purification, low-temperature heat energy |
| <a href="#">Osamu Miki</a>  | Professor           | Environmental Conservation, Marine Environment Improvement, Recycle                          |
| <a href="#">Yugo Osaka</a>  | Assistant Professor | Research from combustion gas to production technologies                                      |

### Division of environmental design

| Name                            | Position            | Research Field   |
|---------------------------------|---------------------|--|
| <a href="#">Ryoko Ikemoto</a>   | Professor           | Sewage systems, wastewater treatment, biological waste water treatment, water environment, microbes, sulfate reduction                 |
| <a href="#">Shen Zhen-jiang</a> | Professor           | Inventory and total amount control approach for urban environment management simulation, agent-based models                            |
| <a href="#">Masami Furuuchi</a> | Professor           | Assessment of atmospheric environment, aerosol, nano-particles, air pollution control technology, assessment of occupational exposures |
| <a href="#">Mitsuhiro Hata</a>  | Associate Professor | Atmospheric aerosol measurement, Biomass combustion, Dust collection technology  |
| <a href="#">Ryo Honda</a>       | Assistant Professor | Environmental Process Engineering, Environmental Microbiology, Membrane Process  |

### Division of natural system

| Name                             | Position            | Research Field   |
|----------------------------------|---------------------|--|
| <a href="#">Yoshio Otani</a>     | Professor           | Aerosol technology, nano-particles, air filtration   |
| <a href="#">Takafumi Seto</a>    | Professor           | Nano-particles, aerosols   |
| <a href="#">Kenji Takahashi</a>  | Professor           | Biomass Refinery, Artificial photosynthesis, chemical reaction processes using ionic liquids, supercritical fluids, plasma and microwave |
| <a href="#">Mikio Kumita</a>     | Associate Professor | Adsorption, sorption cooling, Heat and mass transfer, Reaction engineering   |
| <a href="#">Noboru Takiguchi</a> | Associate Professor | Bioprocesses, bioinformatics   |