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

<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 4 ～January 15, 2018 Japan time: 17:00</td>
<td>Application Period</td>
</tr>
<tr>
<td>Middle of January – Late of January, 2018 (tentative)</td>
<td>Notification of schedule on an Oral Examination</td>
</tr>
<tr>
<td>Beginning to middle of February, 2018 (tentative)</td>
<td>Oral Examination</td>
</tr>
<tr>
<td>Beginning of March, 2018 (tentative)</td>
<td>Notification of Results</td>
</tr>
<tr>
<td>October 1, 2018</td>
<td>Admission</td>
</tr>
</tbody>
</table>

2. QUALIFICATIONS

- **The number of students to be admitted**
  - International students: Total 16 students*

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of applicants accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>International students (special quota) *</td>
<td>8*</td>
</tr>
<tr>
<td>International students (self-financed quota)</td>
<td>8*</td>
</tr>
</tbody>
</table>

  - 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.
  - 3 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 (MEXT) in Japan. Those five students will be selected by overall consideration.
  - The number is subject to change.
  - An applicant who is applying for another university with MEXT scholarship at the same time is not eligible. If identified after acceptance of the scholarship grantees, the applicant will be required to withdraw from the scholarship.
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: [http://ridb.kanazawa-u.ac.jp/public/](http://ridb.kanazawa-u.ac.jp/public/)

Age
Applicant must have been born on or after April 2, 1983.

Academic Background
Applicant must have graduated or will graduate from a Japanese university by September 30, 2018. 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, 2018 a 16-year school curriculum in a foreign country.
[2] is or will be age 22 by September 30, 2018 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, 2018 for admission to a Japanese graduate school.
• **Academic Record**

Eligible applicants must have GPA (Grade Point Average) of 2.30 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.

*NOTICE*

After admission, applicants should keep his/her GPA higher than 2.30 point as well. If his/her GPA will be lower than 2.30 point each year, he/she will be disqualified from the MEXT scholarship student.

**Method to Determine GPA**

<table>
<thead>
<tr>
<th>Grade Point</th>
<th>Excellent</th>
<th>Good</th>
<th>Average</th>
<th>Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-point scale</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>F</td>
</tr>
<tr>
<td>4-point scale</td>
<td>80~100%</td>
<td>70~79%</td>
<td>60~69%</td>
<td>0~59%</td>
</tr>
<tr>
<td>5-point scale</td>
<td>S</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>5-point scale</td>
<td>90~100%</td>
<td>80~89%</td>
<td>70~79%</td>
<td>60~69%</td>
</tr>
<tr>
<td>Point value</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

\[(\text{number of 3 point grades} \times 3) + (\text{number of 2 point grades} \times 2) + (\text{number of 1 point grades} \times 1) + (\text{number of 0 point grades} \times 0)\]

Total number of grades (including those with a value of 0)

• **Language**

An applicant must have enough Japanese or English skills to conduct academic research and education.

• **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, 2018.

• **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] Applicants who are expected to graduate at the time of application and, cannot satisfy the qualifications and the conditions of academic background by the deadline given.

In addition to above, the applicants who want to be recommended as international students of special quota to MEXT must not meet any of the following conditions. If identified after acceptance of the scholarship grantees, the applicants will be required to withdraw from the scholarship.

[4] If an applicant is a previous recipient of a Japanese government scholarship, and, does not have educational research experience more than three years from the first day of the month following the final payment of the previous scholarship to the beginning of the payment of this scholarship, as of October 1, 2018. This does not apply to the past recipient of “Japanese studies”(日研) & “Japan-Korea Cooperative Program for Science and Engineering Students”(日韓共同理工系) scholarships who have graduated or are to graduate their universities in their countries.

[5] If an applicant is applying for any programs of Monbukagakusho (MEXT) scholarship 2018 through institutions other than Kanazawa University at the same time.

[6] If an applicant is, in principle, currently enrolled in a Japanese university or other type of school with the resident status of “College Student,” or will be enrolled in a Japanese university, etc. as another source or self-financed international student between the time of application for this scholarship in his/her country and the time the scholarship period is due to begin. This does not apply to current self-financed international students at Japanese universities who will complete their courses of study and return to their countries before the end of the current fiscal year.

[7] If an applicant is a grantee of a scholarship from other organization (including any governmental organization of his/her own country), the Japanese government (MONBUKAGAKUSHO) JASSO or another Japanese governmental scholarship (Prospective beneficiaries are included). Include an applicant who receive those scholarship and continue to study in Japan after October 2018.


[9] Applicants who wish, from the time of application, to conduct fieldwork or internship outside of Japan, since this scholarship program is intended for overseas students who wish to enroll in a Japanese university and do graduate research in Japan.
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 and prospective supervisor as e-mail attachment by the deadline. And then, applicants must send the originals as well.

Application Period and address for submission

Application Period: January 4, 2018 (Thu) ~ January 15, 2018 (Mon) by Japan time: 17:00

Admission Affairs Section, Student Affairs Division, Science and Engineering Administration Department
Kakuma, Kanazawa 920-1192

Email address: s-nyusi@adm.kanazawa-u.ac.jp
HP: http://www.nst.kanazawa-u.ac.jp/etic/english/

Note:
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

≪For all applicants≫

1) Application Checklist (form1)
2) Application Form (form2)
3) Short Essay (form3)
4) Statement of purpose (form4)
5) A letter of recommendation from the president, Dean, or Director of the institute addressed to the President of Kanazawa University (form5)
6) Academic transcript of each academic year of the last university attended including your GPA and/or ranking in your institution (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) Field of Study and Research plan form (form6) Both side printing
11) Certificate of official language qualification such as TOEIC or TOEFL-iBT or TOEIC-PBT.
12) Letter of Acceptance from Prospective Supervisor (form7)
   ※You should submit PDF only. The prospective supervisor will submit the original to Admission Affairs Section, Student Affairs Division.
13) Photocopy of a passport or birth certificate or certificate of citizenship

≪For the applicants who want to apply for MEXT scholarship≫
The applicants who want to be recommended as international students of special quota to MEXT should submit the following documents in addition to above 1) – 13).

14) Cover Sheet (form8)
15) Application form for Japanese Government Scholarship (form9)
   Both side printing
16) Certification of health (to be completed by the examining physician) (form10)
17) Pledge to the President of Kanazawa University (form 11)
   Both side printing
18) For those who are currently employed, a letter of release / recognition from their supervisor, recognizing their right to apply and / or pursue further education in Kanazawa University.

*From form1 to form11 must be printed in A4 sized paper.

*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(4.5×3.5cm) to be pasted on the application must be taken with in the past 6 months. And it must be of upper body, uncapped, full-faced, and solid-color background.
Name and nationality must be indicated on the back.

*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.

*Not all students who want to be recommended as international students of special quota to MEXT can be recommended.

(2) Examination
1. Screening Method
   Selection will be based on the results of an Oral Examination over the Internet and the screening of the submitted documents.
   Date of Oral Examination: about the beginning to middle of February 2018 (tentative)
   Venue of Oral Examination: It will be announced later by prospective supervisor.

2. Announcement of Results
   Date: the beginning of March 2018 (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.
2. Applicant 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.

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

② Applicant 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) SCHOLARSHIP STUDENTS

※ An applicant who is applying for another university with MEXT scholarship at the same time is not eligible. If identified after acceptance of the scholarship grantees, the applicant will be required to withdraw from the scholarship.

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.) Stipend will be paid for 2 years from October, 2018. 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 does not obtain a College Student (ryugaku) visa before arriving in Japan or the recipient’s residence status has changed to one other than College Student;
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.
9. The recipient’s GPA is lower than 2.30 point each year. This GPA will be calculated by the method which is designated by MONBUKAGAKUSHO.

6. SCHOLARSHIP OF KANAZAWA UNIVERSITY

Kanazawa University provides some scholarship programs for International students.
For more information, please refer to the following website.
http://www.adm.kanazawa-u.ac.jp/ie/e/abroad/scholarship.html

7. 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.
### Division of Material Chemistry

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Research Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiroshi Hasegawa</td>
<td>Professor</td>
<td>Hydrosphere chemistry, environmental chemistry, remediation technology, toxic metals, rare metals</td>
</tr>
<tr>
<td>Tetsuya Taima</td>
<td>Professor</td>
<td>Organic photovoltaic cell, perovskite solar cell, molecular orientation control</td>
</tr>
<tr>
<td>Akio Ohta</td>
<td>Associate Professor</td>
<td>Physical chemistry of interfaces, surfactant science, amino acid-type surfactants, surfactants, biomaterials, calorimetry</td>
</tr>
<tr>
<td>Teruya Maki</td>
<td>Associate Professor</td>
<td>Analytical chemistry, bioaerosols, environmental chemicals phytoplankton</td>
</tr>
<tr>
<td>Takahiro Yamaguchi</td>
<td>Associate Professor</td>
<td>Electrochemistry, Modified electrode, Oxygen reduction reaction</td>
</tr>
<tr>
<td>Asami Mashio</td>
<td>Assistant Professor</td>
<td>Marine chemistry, Environmental chemistry, Analytical chemistry</td>
</tr>
</tbody>
</table>

### Division of Mechanical Science and Engineering

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Research Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akio Kodama</td>
<td>Professor</td>
<td>Adsorption, gas separation, desiccant cooling, air purification, low-temperature heat energy</td>
</tr>
<tr>
<td>Osamu Miki</td>
<td>Professor</td>
<td>Environmental Conservation, Marine Environment Improvement, Recycle</td>
</tr>
<tr>
<td>Yugo Osaka</td>
<td>Assistant</td>
<td>Research from combustion gas to production technologies</td>
</tr>
</tbody>
</table>

### Division of Environmental Design

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Research Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ryoko Ikemoto</td>
<td>Professor</td>
<td>Sewage systems, wastewater treatment, biological waste water treatment, water environment, microbes, sulfate reduction</td>
</tr>
<tr>
<td>Zhen-jiang Shen</td>
<td>Professor</td>
<td>Inventory and total amount control approach for urban environment management simulation, agent-based models</td>
</tr>
<tr>
<td>Masami Furuuchi</td>
<td>Professor</td>
<td>Assessment of atmospheric environment, aerosol, nano-particles, air pollution control technology, assessment of occupational exposures</td>
</tr>
<tr>
<td>Mitsuhiko Hata</td>
<td>Associate Professor</td>
<td>Aerosol, biomass combustion, source countermeasure technologies</td>
</tr>
<tr>
<td>Ryo Honda</td>
<td>Associate Professor</td>
<td>Environmental Process Engineering, Biomass Energy, Environmental Microbiology, Membrane Process, Global Warming Mitigation Technology</td>
</tr>
<tr>
<td>Masashi Ohashi</td>
<td>Associate Professor</td>
<td>Materials physics and chemistry, Thermophysical property, Functional materials, Low temperature, Magnetism</td>
</tr>
<tr>
<td>Kenji Taniguchi</td>
<td>Associate Professor</td>
<td>Numerical weather prediction, River runoff simulation, Impact assessment of global warming</td>
</tr>
<tr>
<td>Norihisa Matsuura</td>
<td>Assistant Professor</td>
<td>Water environmental engineering, wastewater treatment, eco-friendly technology, microbial community analysis</td>
</tr>
</tbody>
</table>

### Division of Natural System

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Research Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoshio Otani</td>
<td>Professor</td>
<td>Aerosol technology, nano-particles, air filtration</td>
</tr>
<tr>
<td>Takafumi Seto</td>
<td>Professor</td>
<td>Nano-particles, aerosols</td>
</tr>
<tr>
<td>Kenji Takahashi</td>
<td>Professor</td>
<td>Biomass Refinery, Artificial photosynthesis, chemical reaction processes using ionic liquids, supercritical fluids, plasma and microwave</td>
</tr>
<tr>
<td>Hirohisa Uchida</td>
<td>Professor</td>
<td>High pressure/Supercritical fluid technology, Advanced materials production, Crystallization, Thermodynamics</td>
</tr>
<tr>
<td>Mikio Kumita</td>
<td>Associate Professor</td>
<td>Adsorption, Sorption cooling, Heat and mass transfer, Reaction engineering</td>
</tr>
<tr>
<td>Noboru Takiguchi</td>
<td>Associate Professor</td>
<td>Bioprocesses, bioinformatics</td>
</tr>
<tr>
<td>Hidenori Higashi</td>
<td>Associate Professor</td>
<td>Supercritical fluids technology, Aerosol science &amp; technology, Molecular dynamics</td>
</tr>
<tr>
<td>Yayoi Inomata</td>
<td>Associate Professor</td>
<td>Atmospheric Environment Science, Meteorology, Geochemistry</td>
</tr>
</tbody>
</table>