

**Doctoral Program**  
**2023 October (Fall) Admission**

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# **Application Guidelines**

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Special Entrance Examination for International Students

Application Period: **June 8, 2023 – June 14, 2023**

Date of examination: **July 6, 2023**

**Akita University**  
**Graduate School of International Resource Sciences**

<https://www.akita-u.ac.jp/shigen/>

# Admission Policy

## **[Graduate School of International Resource Sciences]**

### ● Desirable qualities in applicants

1. Those who are driven by a strong spirit of enquiry focused on resource, energy, and environmental issues to build a sustainable society and who want to acquire a high level of specialist knowledge, and take an active part in international resource development.
2. Those who are motivated and creative, who have an understanding of international ethical considerations and discernment, and who want to operate as resource engineers and researchers equipped with advanced knowledge.
3. Those who want to utilize an environment and system that facilitates learning for international and adult students who have abundant experience and understanding of diverse values.

## **[Doctoral Program]**

### ● Desirable qualities in applicants

The Akita University's Graduate School of International Resource Sciences Doctoral Program welcomes students who are strongly motivated to operate on a global stage and in leadership positions in their particular specialist areas through the development of advanced engineering technologies and inquiry into scientific issues.

## **[Department of Geosciences, Geotechnology, and Materials Engineering for Resources]**

### ● Desirable qualities in applicants

1. Those demonstrating marked academic ability and problem-solving capacity in their specialty area, as well as strong ethics and an international perspective, who seek to acquire advanced specialist knowledge and undertake leading-edge research in the fields of resource and earth sciences and resource development and environmental science.
2. Those strongly motivated to become researchers and engineers operating internationally in fields related to resource exploration, new resource development, global environmental issues, and resource economics, etc.

### ● Acceptance policy for selecting students

〈Special Entrance Examination for International Students〉

We evaluate “knowledge and skills,” “reasoning, judgment, and expression,” and “initiative, diversity, and cooperativeness” by documents and oral interview. At the interview we mainly evaluate “knowledge and skills,” “reasoning, judgment, and expression,” and “initiative, diversity, and cooperativeness.”

All subjects are taught in English.

## **Confidentiality of Applicant Information**

The personal information of applicants from submitted documents and from entrance examinations is used by Akita University solely for the following purposes:

- In matters related to selecting successful applicants (including related matters such as statistical processing).
- In the case of students who have completed enrollment procedures, post-admission enrollment management, academic guidance, matters related to student support and matters related to the collection of tuition fees.

## 1. Number to be Admitted

Department	Number to be Admitted
Geosciences, Geotechnology, and Materials Engineering for Resources	a few

It is highly recommended that applicants consult with prospective faculty members about the expected field or topics for study before application. Faculty education and research areas are listed on page 12-13. Inform the admissions office of the name of your prospective faculty member at Akita University.

〈Contact Address〉

Admissions Office Akita University

E-mail: [nyushi@jimmu.akita-u.ac.jp](mailto:nyushi@jimmu.akita-u.ac.jp)

## 2. Application Qualifications

- The status of residence of an incoming student must be “College Student.”
- Non-Japanese nationals must meet any of the following criteria:
  - (1) Have received a master’s degree or professional degree, or will acquire such a degree by September 2023.
  - (2) Have a degree from a foreign institution that is equivalent to a Japanese master’s degree or will acquire it by the end of September 2023.
  - (3) Have received or will be able to receive a master’s degree or a degree equivalent by the end of September 2023 by completing a correspondence course offered by a foreign institution in Japan.
  - (4) Have obtained special recognition from the Japanese Ministry of Education, Culture, Sports, Science and Technology (refer to Ministry of Education Notification 118, 1989).
  - (5) Be 24 years of age or older on September 30, 2023, and is considered to have an academic ability that is equivalent to or higher than a master’s degree after an individual Application Qualification evaluation conducted by the Graduate School of Akita University.

### Note:

- ① Applicants who are accepted based on the qualifications above, yet are later confirmed as not being able to complete the admission procedures by the deadline, will not be admitted. Details on admission procedures will be sent to all accepted students.
- ② If the application is made on the basis of (4) or (5) above, the Pre-evaluation for Application Qualification is required prior to the submission of application.

## 3. Pre-evaluation of Application Qualification

- (1) Applicants applying under requirement (4) of the Application Qualifications must be those who have been engaged in research at such organizations as a college or a research institute for no less than two years doing postgraduate work, and have been recognized

by the Graduate School of Akita University as having the academic ability equivalent to a master's degree or higher based on the results produced from the said research.

- (2) Applicants applying under requirement (5) of the Application Qualifications must satisfy one of the following requirements:
  - 1) Be 24 years of age or older on September 30, 2023, and have graduated from such institutions as junior colleges, higher technical schools, or have completed courses in other educational institutions. The applicant must also have been acknowledged by the Graduate School of Akita University to have produced academic achievements equivalent to a master's degree thesis or higher in such forms as books, papers, presentations, reports, or patents.
  - 2) Have been engaged in the fields of science/engineering for no less than 2 years and have been recognized by the Graduate School of Akita University to have produced the academic achievement equivalent to a Master's Degree thesis or higher in such forms as books, papers, presentations, reports, or patents.
- (3) Applicants applying under requirements (4) or (5) of the Application Qualifications must submit the following via their intended a supervising professor :
  - a) Pre-evaluation Request for Application Qualification (attached herein), b) Academic Record for Approval of Application Qualification (Complete Curriculum Vitae overleaf of the Pre-evaluation Request for Application Qualification.), c) Record of Academic Achievements (attached herein), d) Proof of Graduation/Completion, e) Academic Record Transcripts (official transcripts in a sealed envelope from the university or the faculty last attended) and f) copies of published papers to the Admissions Office of the Graduate School of Akita University for Pre-evaluation of Application Qualification. The request must be made from May 8, 2023, to no later than May 12, 2023. Allow enough time for the documents to arrive at the office by the deadline of May 12, 2023.
- (4) The result of the Pre-evaluation for Application Qualification will be notified to the applicant by June 4, 2023.
- (5) Qualified applicants should proceed with the application procedure as specified herein.

#### **4. Application Period and Mailing Address**

##### **(1) Application Period:**

From June 8, 2023 to no later than June 14, 2023.

- 1) If brought in person or by proxy, application documents will be accepted at the Admissions Office between 9:00 a.m. and 4:00 p.m.
- 2) Post-mail application documents must be sent by registered mail, on which "Application to Doctoral Course, Graduate School of International Resource Sciences" must appear in red ink. The documents must reach the Admissions Office no later than 4:00 p.m. on

June 14, 2023. Special attention should be paid in estimating the days needed for overseas delivery.

**(2) Mailing address:**

Admissions Office Akita University  
1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan  
Tel: +81-18-889-3178 Fax: +81-18-835-9924  
E-mail: [nyushi@jimu.akita-u.ac.jp](mailto:nyushi@jimu.akita-u.ac.jp)

## 5. Application Procedures

### (1) Documents to be submitted

①, ② Application for Admission, Examination Admission Slip

Requested information must be entered on the designated form (attached herein).

Complete Curriculum Vitae with the Application for Admission.

③ Photo ID Card

A frontal-view photograph of the applicant's face, without veil or cap / hat, 4.5 cm x 3.5 cm in size and taken within three months prior to this application must be affixed to the designated area of the photo ID Card (attached herein).

④ Certificate of Completion or Prospective Completion or Certificate of Graduation

Applicants who, either have or will be able to get a master's degree must submit a certificate of either completion or prospective completion of their Master's Program signed by the university or the graduate school last attended. Applicants having completed undergraduate work only, must submit a graduation certificate issued by the university or the faculty last attended.

⑤ Academic Record Transcript

Must be officially prepared by the university president, dean, or registrar of the school attended.

⑥ Master's Thesis Abstract

An abstract must be written on the form (attached herein) using 600 words or less. In the case of an applicant with a prospective completion of a Master's Program, the title of the Master's Thesis and an outline of the research process must be entered on the form. If papers, academic presentations, or patent licenses are available in print, a copy of such should also be enclosed.

(Not needed if applying under requirements (4) or (5) of the Application Qualifications.)

⑦ Research Plan

The expected field or topics for study must be described in the outline of the research plan on the form (attached herein) in 300 words or less ***upon consultation your prospective faculty member.***

⑧ Record of Academic Achievements

Books, papers, academic presentations, patents, practical new designs, or other

specific activities in academic societies or within the community, are to be explained on the appropriate form (attached herein).

⑨ Proof of Evaluation Fee Payment

The Evaluation Fee is 30,000 yen.

Remittance Period: April 17, 2023 - June 14, 2023 (Japan time must be observed)

After remitting the evaluation fee, send an e-mail notifying the Admissions Office as soon as possible. [E-mail : nyushi@jimu.akita-u.ac.jp]

If the evaluation fee received does not meet the required amount of 30,000 yen, the application procedure will be considered incomplete, and the application will not be accepted. The Evaluation Fee will be returned to the applicant, but the remittance fee will be withheld.

The Evaluation Fee will not be refunded for any reason after the application documents have been received. The Evaluation Fee is non-refundable in the case of non-acceptance or if the successful applicant deadlines to enroll.

Those who are scheduled to graduate the Akita University Master's course in September 2023 are not required to pay The Evaluation fee.

〈Depositing from overseas bank〉

Make sure that the fee is sent by Electronic wire transfer to the (below) bank account in yen.

Payment made by other currency will not be accepted. Any cost for the transfer is to be paid by the applicant. Enclose a copy of "application for remittance" with "Proof of Evaluation Fee Payment From" attached herein when mailing the admission application documents.

1. Amount : 30,000 yen (The fee must be received in yen)

2. Remittance Method : Electronic wire transfer

3. Remittance Fee : to be paid by the payer

4. Remittance Information :

Bank Name : Akita Bank, Ltd.

Branch : Tegata Branch

Address : 160-1, Aza-Yamazaki, Tegata, Akita-shi, Akita, 010-0851 Japan

Account Number : 688502

Recipient : Akita University

Bank Identifier Code (SWIFT) : AKITJPJT

5. Note :

When filling out the "Application for Remittance," enter "Evaluation fee as Purpose of Remittance," and enter "applicant's name" in the message box.

〈Depositing from Japan Post Bank in Japan〉

Send an e-mail to that effect to the Admissions Office. [E-mail : nyushi@jimu.akita-u.ac.jp]

Admissions office will send the Payment Handling Slip for Japan Post Bank.

Pay the Evaluation Fee of 30,000 yen (bank transfer fee will be separately charged) at the counter of Japan Post Bank or post office by using the Payment Handling Slip. Do not pay via ATM.

After the bank transfer, make sure that the “Certificate of Bank Transfer Reception (Customer’s Copy)” has been date-stamped and affix the Certificate to the designated area in "Proof of Evaluation Fee Payment Form" attached herein.

⑩ Letter of Recommendation

Recommendations must be written by the applicant’s supervisor of the graduate school in Japanese or English.

⑪ Others

- 1) Applicants residing Japan and do not have Japanese citizenship must submit a certified copy of their resident card that indicates their Status of Residence and issued by the municipality where they reside. A copy of the applicants passport showing a) Personal information page with photo and b) Visa with Status of Residence.
- 2) Applicants residing overseas must submit an authorized certificate of his/her family register or proof of citizenship in the applicant’s home country.

**Note:**

- a) Applicants who are permitted to apply on the basis of the requirements (4) or (5) of the Application Qualification are exempt from submitting a graduation or completion certificate, but must submit sealed Academic Record Transcripts by the university last attended.
- b) From ① to ⑩ and ⑪ 2) if it is not possible to submit originals, contact the Admissions Office before deadline of application period. [E-mail:nyushi@jimu.akita-u.ac.jp]

**(2) Important notice for submitting documents**

- ① No application will be accepted until all documents mentioned above are fully and accurately completed.
- ② Once submitted, documents will not be returned to applicant for any reason.
- ③ If contact address entered in the application form changes after submission, the Admissions Office must be promptly notified of the change.  
E-mail: [nyushi@jimu.akita-u.ac.jp](mailto:nyushi@jimu.akita-u.ac.jp)
- ④ Attached forms may be either hand-written or typed.

## **6. Evaluation of Applicants**

- (1) Screening for admission will be determined by the combined results of an oral examination (presentation) and a document review.
- (2) The contents of the oral examination: About expected Research Areas, Master’s Thesis, Research Plan and Record of Academic Achievements



(3) Academic ability test (oral examination)

Date of examination : July 6, 2023

Language : English or Japanese (Choice by applicants)

Method : Online (Planned to use Zoom)

Make sure to note the start time, the place and details, which will be sent to you along with your examination admission slip.

## 7. Pre-consultation for Disabled Applicants

As a preliminary step in the application process, disabled applicants (refer to the chart below) who need special consideration during either the application process or the program itself must submit a letter detailing the items listed below together with a medical certificate prepared by a doctor no later than May 25, 2023. Early consultation is recommended since advance preparation may be needed in cases of severe disability.

- ① Name, age, contact address, telephone number, and department choice.
- ② Type and degree of disability.
- ③ Detailed explanation of care needed during application and course study.
- ④ Special preparation and care taken at the university last attended.
- ⑤ Description of everyday life.
- ⑥ Name, address, and telephone number of the university last attended.

If needs arise after the deadline of May 25, 2023 due to an accident or other contingency, contact the Admissions Office immediately.

Type of Disability	Extent of Disability
Visual	Those with eyesight of less than 0.3 with both eyes (Universal Eyesight Test Chart) or who have ophthalmologic functional disorders that do not allow easy recognition of normal size letters or diagrams, even with the use of a magnifying glass.
Hearing	Those with an auditory capacity of more than 60 decibels (Audiometer testing) who have difficulty listening to normal talking even with a hearing aid.
Physical	1. Those who are not capable of performing basic daily tasks such as walking or writing even with the use of orthopedic or prosthetic devices. 2. Those with physical disabilities not as severe as the above but who need constant medical assistance and/or observation.
Health	1. Those who are under constant medical restrictions due to prolonged chronic respiratory, kidney, nervous system illness, malignant growth, or other disorder. 2. Those placed under medical restrictions due to prolonged weak or feeble health.

Other	Those not specifically mentioned above, yet require special consideration when either applying for admission or attending classes during the course of study.
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Translated from the original by the Graduate School of Akita University.

**Note:**

- a) The above are in conformity with Article 22-3 of the School Education Law Enforcement Regulations.
- b) The above required information (items ①-⑥) is also requested if the applicant uses, on an everyday basis, common aids such as hearing aids, crutches, or a wheelchair.

## 8. Acceptance Notification

Results are tentatively scheduled to be e-mailed to all applicants at 3:00 p.m on July 18, 2023. Therefore telephone inquiries will not be accepted. A Letter of Acceptance will be sent to successful applicants.

## 9. Admission Procedures

- (1) Details for Admission Procedures will be sent to all who are accepted along with the Letter of Acceptance.

Accepted students are strongly advised to come to Japan in time to complete the Admission Procedures in person.

- (2) School Fees (must be paid in Japanese currency)

- ① Admission fee: 282,000 yen (subject to change)

However, those who are scheduled to graduate the Akita University Master's course in September 2023 are not required to pay The Admission fee.

- ② Tuition: 267,900 yen for the first semester (535,800 yen for the first academic year) (subject to change)

**Note:**

- a) Admission fee paid will not be refunded for any reason.
- b) The above school fees are projected amounts and are subject to change before or during the course. Revised admission fees will apply to all new students if the revision takes place before the end of the Admission Procedure Period. Tuition can change during the program.
- c) If a candidate cancels his/her admission before September 29, 2023, after completion of the Admission Procedures due to unavoidable circumstances, the tuition paid may be refunded upon the payer's request only after designated procedures are completed.

### (3) Other information

- ① Those with an excellent academic standing yet who have difficulty paying the admission fee due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all or half of the admission fee, or may be allowed to pay the fee at a later date.
- ② Those with an excellent academic standing yet who have difficulty paying the tuition due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all, half or a third of the tuition, or may be allowed to pay the fee at a later date.

Admissions Office Akita University  
1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan  
Tel: +81-18-889-3178 Fax: +81-18-835-9924  
E-mail: [nyushi@jimu.akita-u.ac.jp](mailto:nyushi@jimu.akita-u.ac.jp)

## 10. Obtaining a Visa

Students entering Japan for the purpose of studying abroad must have a "visa" issued in advance. The first step in obtaining a visa is to apply for a Certificate of Eligibility at the Ministry of Justice, Immigration Bureau in Japan. On behalf of those students who reside overseas, who have been accepted after evaluation, and who are confirmed to have completed all the admission procedure requirements, Akita University will apply for the Certificate of Eligibility upon the request of the student. Upon receipt of the Certificate of Eligibility from the Immigration Bureau, Akita University will then mail it to the student's address. After receiving the Certificate of Eligibility, the student can apply for a visa with it and other required documents at the Japanese embassy or consulate in his/her home country.

Flow chart on how to obtain a visa:

- ① Contact the International Affairs Division by e-mail after receiving A Letter of Acceptance.  
(the applicant → International Affairs Division)  
\*E-mail address: [ryugaku@jimu.akita-u.ac.jp](mailto:ryugaku@jimu.akita-u.ac.jp) (International Affairs Division)  
\*The subject of the e-mail should be "Application for Certificate of Eligibility" and the applicant's name, expected year and month of enrollment, and the course name should be written in the body of the e-mail.

- ② Guidance on documents required for the application process for Certificate of Eligibility  
(International Affairs Division → the applicant)
- ③ Submission of documents required for the application process for Certificate of Eligibility  
(the applicant → International Affairs Division)
- ④ Application for Certificate of Eligibility  
(International Affairs Division → Sendai Regional Immigration Bureau)
- ⑤ Issuance of Certificate of Eligibility  
(Sendai Regional Immigration Bureau → International Affairs Division)
- ⑥ Mailing Certificate of Eligibility  
(International Affairs Division → the applicant)
- ⑦ Applying for and obtaining a visa in the student's home country  
(the applicant → Japanese Embassy or Japanese Consulate)

**Note:**

- a) There are several types of visa, and the person's status of residence is determined according to his/her reason for coming to Japan, status and position. The one applicable to international students for studying at a university in Japan is "Student".
- b) The application process takes time, so applicants should contact the International Affairs Division as soon as they are admitted to Akita University. It takes about 6-7 weeks from application to issuance of the Certificate of Eligibility. It also takes several days to a month to send the issued certificate to the applicant by international mail. In addition, it takes several days to a month from the time the applicant applies for visa issuance to the time the visa is issued, depending on the country in which the application is made.
- c) If an applicant declines admission due to unavoidable circumstances, the applicant must immediately return the Certificate of Eligibility to the International Affairs Division with a letter stating the reason for the cancellation.

For any questions about a certificate of eligibility:

Akita University International Affairs Division  
1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan  
Tel: +81-18-889-2258  
E-mail: [ryugaku@jim.u.akita-u.ac.jp](mailto:ryugaku@jim.u.akita-u.ac.jp)

# Outline of the Graduate School of International Resource Sciences

The Graduate School of International Resource Sciences was established to educate specialists with wide-ranging knowledge in fields from earth sciences through to resource development and environmental issues. Graduates will aim for achieving a sustainable society and operate as global leaders as a result of pursuing advanced studies and research backed by advanced knowledge and expertise in the fields of (1) resource and earth sciences and (2) resource development and environmental science. **All subjects are taught in English.**

## 1. Organization

The Graduate School of International Resource Sciences comprises a two-year master's degree Program followed by a three-year Doctor's Degree Program based on the Faculty of International Resource Sciences. The three-year doctoral program has a different structure from the undergraduate and master's programs, comprising a single department (major) — Resource Science — with two divisions.

### Graduate School of International Resource Sciences Master's Program

Department	Division
Earth Resource Science	Earth Resource Science
Earth Resource Engineering and Environmental Science	Earth Resource Engineering and Environmental Science

### Graduate School of International Resource Sciences Doctoral Program

Department	Division
Department of Geosciences, Geotechnology, and Materials Engineering for Resources	Earth Resource Science
	Earth Resource Engineering and Environmental Science

## 2. Outline of Departments and Course Content (as of 2023)

### **Department of Geosciences, Geotechnology, and Materials Engineering for Resources**

Despite the energy and resource conservation efforts of Japan and countries around the world, demand for energy and earth's crustal resources is expected to continue to rise, with 21<sup>st</sup>-century society facing the problem of mass consumption of resources and energy as well as global-scale environmental problems. These two sets of problems are closely interrelated, and resolving resource-related issues will require not only resource exploration and development based on progress of earth science but also a systematic understanding of resource science that takes into consideration resources material cycles, and economic elements.

This department entails education and research in leading-edge resource science ranging from science and technology related issues to exploration, production, and development. This department addresses environmental issues, and problems, as well as taking into account the generation of a diverse range of minerals by applying environmental friendly methods, energy, and other resources. Finally, this department also considers to resource economics and resource recycling. We aim to educate experts with a wide-ranging knowledge of resource science and advanced specialist knowledge who can meet societal needs. To this end, the Department of Resource Science comprises two divisions, Earth Resource Science and Earth Resource Engineering and Environmental Science.

#### **Earth Resource Science Division**

This division comprises education and research on exploration technologies for metal resources, non-metal resources and energy resources, etc., the explication of generation mechanisms and deposit in environments of resources. As a foundation for this, students also engage in education and research in resource geology, igneous petrology, as well as studies integrating various fields. The aim is to equip students not only with resource exploration skills but also the ability to predict and prevent natural disasters caused by seismic and volcanic activity, as well as the ability to handle energy development and environmental issues.

#### **Earth Resource Engineering and Environmental Science Division**

This division comprises science and technology education and research with full consideration to environmental protection, dealing primarily with those resource development technologies essential for the production and utilization of the resources contained in the Earth.

More specifically, students will engage with global resource development — energy, mineral, water, and other resources — with holistic consideration of both scientific and technologic aspects such as the resource environment, material cycles and resource exploration, as well as economic evaluations.

Other fields of study will include crust and rock engineering from a systems engineering perspective, resource processing engineering, smelting engineering as a production technologies, and new recycling technologies applying various process technologies and environmental protection technologies.

### 3. Content of Education and Research Areas, Faculty Member in Charge and Subject Title

Division	Education and Research Areas		Faculty Member	Subject Title
	Field	Content		
Earth Resource Science	Resource geology	Analysis of optimal scientific and practical methods and tools for the study of the origin of mineral deposits and their exploration and assessment	Prof. Andrea Agangi Associate Prof. Ryohei Takahashi	Mineralisation through the History of Earth Advanced Economic Geology and Exploration
		Genesis of ore deposits and minerals based on analyses of geological geophysical and geochemical conditions	Prof. Yasushi Watanabe ① Associate Prof. Takuya Echigo	Genesis of Mineral Resources Advanced Applied Mineralogy
		Dynamic process and motion of Earth's crust and upper mantle, and fracture and deformation structures developed in rock and minerals	Associate Prof. Osamu Nishikawa	Tectonics of the Earth
		Sedimentology, paleoceanography and fuel economic geology based on micropaleontology as the foundation for the exploration of petroleum, coal, natural gas and other resources	Associate Prof. Makoto Yamasaki	Advanced Applied Micropaleontology
		Discussing and understanding the state of the art in modern paleoenvironmental research. Focus on understanding how current research relates to previous studies.	Prof. Stephen P. Obrochta	Current topics in Paleoenvironmental Study
		Research of geoscientific theories and development of modern technologies for hydrocarbon resource exploration and exploitation		Modern Geoscientific Theory of Petroleum Exploration
		Formation and mass transfer of and exploration methods for petroleum, natural gas and unconventional energies based on geological theory	Prof. Shun Chiyonobu	Petroleum Geology
	Igneous petrology	Interpretation of geochemical and mineralogical data from igneous rocks and related rocks to determine origins and processes of magmas	Prof. Tsukasa Ohba	Magma Chemistry
	Geophysics	Elucidation of subsurface and surface structures using solid-earth geophysical methods Elucidation of subsurface and surface structures through measurement and analysis using geophysical methods		Applied Geophysics I
				Applied Geophysics II
Earth Resource Engineering and Environmental Science	Circulation of resource-environment substance	Genesis of mineral deposits and resource exploration based on the chemistry and isotope characteristics of ore-forming fluid, ore solubility, and mass transfer mechanisms		Advanced Ore Solution Chemistry
		Useful and toxic elements in relation to resources and the global environment from a material cycle perspective	Associate Prof. Yasumasa Ogawa	Resource Geology and the Environment
	Energy resource engineering	Theoretical and applied studies on the development of fluid energy resources such as petroleum, natural gas, and geothermal energy	Prof. Hikari Fujii	Advanced Petroleum and Geothermal Engineering
	Geosystem Engineering	Basic and applied researches on oil and gas, geothermal, and other related resource developments with a focus on drilling engineering	Prof. Shigemi Naganawa	Advanced Drilling Engineering
	Rock engineering	Mechanical properties, evaluation methods and engineering usage of rocks and bedrock	Prof. Tadao Imai	Advanced Rock Mechanics
		Theoretical and applied studies on the crust engineering necessary for advanced underground space utilization related to resource development and environmental protection	Associate Prof. Akihisa Kizaki	Advanced Crust Engineering
	Mineral and resource processing	Development and application of advanced mineral processing technologies in relation to mineral resources, recycling and wastewater treatment	Prof. Atsushi Shibayama	Applied Resource Processing
		Key technique and evaluation method for extracting metals from mineral resources and waste materials using hydrometallurgy	Associate Prof. Kazutoshi Haga	Advanced Separation Engineering

Division	Education and Research Areas		Faculty Member	Subject Title
	Field	Content		
Earth Resource Engineering and Environmental Science	Mineral and resource processing	Advanced studies on resource engineering design for remarkable international engineers in the field of environment, mineral processing, metallurgy, and recycling	Associate Prof. Sanghee Jeon	Advanced Design for International Resources Engineering
	Applied process engineering	Theoretical and applied studies on the development of pyro/hydro metallurgical and the recovery of useful elements from waste	Associate Prof. Yasushi Takasaki	Applied Material Production Engineering
	Mineral Economics and Mining Informatics	Empirical analysis of economics and finance for sustainable resource supply and utilization using system modeling and environmental assessments  Application of informatics to resource development such as metal resource mining through an interdisciplinary approach, to create new mining technology	Prof. Tsuyoshi Adachi	Mineral Economics and System Engineering
			Associate Prof. Hisatoshi Toriya	
	Resource Management	Theoretical and applied studies on the development of environmental resource management, environmental and social impact assessment, community relations, and corporate social responsibility, associated with the resources sector.	Prof. Hiroshi Nawata	Advanced Resource Management
	Resource Policy	For sustainable resource governance, education and research on various theories of political science, economic systems, and energy systems and analysis, evaluations, and proposals of resource policies	Prof. Fumiaki Inagaki	Advanced Resource Politics
Associate Prof. Junichiro Oda				

① : This professor will retire in March 2025 in accordance with the mandatory retirement regulation.

#### 4. Completion Requirements and Degree Awarded

The Graduate School of International Resource Sciences comprises a two-year master's degree Program followed by a three-year Doctor's Degree Program based on the under graduate Faculty of International Resource Sciences. The three-year doctoral program has a different structure from the undergraduate and master's programs, comprising a single department (major) — Resource Science — with two divisions.

A Doctoral Degree either in Resource Science or Science is awarded to students majoring in Earth Resource Science, and in either Resource Science or Engineering to students majoring in Earth Resource Engineering and Environmental Science, who have satisfied the following requirements: at least three years' residence in the Doctoral Program; acquisition of a minimum of 12 course credits as stipulated in the chart below; an acceptable doctoral thesis; and a pass mark in the final comprehensive evaluation, based on the necessary guidance from faculty members.



## Credits Needed for the Completion of the Doctoral Program

Courses	Credits Required	Remarks
A Courses	A minimum of 4 credits (elective)	A minimum of 4 credits from the courses offered by the division of which the head supervisor is a member 〈Advance specialist knowledge and ability and cultivate the basic skills needed for research projects〉
B Courses	A minimum of 2 credits (elective)	A minimum of 2 credits from the courses offered by divisions of which the head supervisor is NOT a member 〈Advance specialized knowledge and ability and cultivate the basic skills needed for research projects〉
Intensive Training	2 credits (required)	Study of the latest literature written on the research theme and peripheral fields; Instructions are given in a seminar-style. 〈Handled by the supervisory group〉
Thesis Plan	* (required)	The “proposal” method to evaluate doctoral thesis by the supervisory group 〈As a preparatory step, students are to present the structure of the paper and summaries of each section orally. Permission to write a thesis is given only to those who receive a satisfactory proposal evaluation.〉
Education Experience	* (required)	Select one: (1) Assist undergraduate or Master’s Program students with lab work studies (2) Assist undergraduate or Master’s Program students with speech drafts and presentation skills in preparation for academic lectures and symposiums. (3) Assist outside businesses by providing research and technical guidance to their production and development staff.
Experiments	4 credits (required)	Acquire advanced leading-edge skills in relation to research papers and develop a new field to be added to the curriculum, cultivating the ability to apply skills and knowledge to new challenges.
Total	A minimum of 12 credits	

Note: Asterisks (\*) indicate subjects which are required but earn no credits.

### 5. Other

Akita University has established the university’s Rules on Security Export Control in accordance with the Foreign Exchange and Foreign Trade Act, and conducts strict examinations for acceptance of international students, etc.

Therefore, please be advised that international applicants may be unable to receive their desired education or conduct their desired research due to the restriction by the above regulations.

2023 October (Fall) Admission  
 Doctoral Program  
 Special Entrance Examination for International Students  
 Graduate School of International Resource Sciences, Akita University

## Application for Admission

Application No.	* Official use only.	
Name of Applicant		
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female	
Date of Birth (Age)	Year	Month      Day      (Age      )
Application Qualification	<input type="checkbox"/> (1) <input type="checkbox"/> (2) <input type="checkbox"/> (3) <input type="checkbox"/> (4) <input type="checkbox"/> (5)	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science	
Expected Supervisor		
Educational History Undergraduate Level	Name of School	
	Department	
	Date of Graduation	Year      Month      Day
	<input type="checkbox"/> From overseas partner university recommendation	
Educational History Postgraduate Level	Name of School	
	Course/Major	
	Date of Completion	Year      Month      Day
	<input type="checkbox"/> From overseas partner university recommendation	
Current Employment	Name of Employer	
	Country	
	Postal code	
	Address	
	Tel	
Current Address	Country	
	Postal code	
	Address	
	Tel	
	E-mail address	
Contact Address	Country	
	Postal code	
	Address	
	Tel	
	E-mail address	

Note: 1. Contact Address is where applicant wishes to receive correspondence.  
 2. Detailed information is requested in the Curriculum Vitae.

# Curriculum Vitae

## Educational Background

School Name	Required Number of Years Schooling you have attended	Year and Month of Entrance and Completion ( YYYY / MM )	Diploma or Degree Awarded
Elementary Education / Elementary School	Years	From	
		To	
Secondary Education / Lower Secondary School	Years	From	
		To	
Secondary Education / Upper Secondary School	Years	From	
		To	
Higher Education / Undergraduate level	Years	From	
		To	
Higher Education / Graduate level	Years	From	
		To	
	Years	From	
	Years	From	

Be sure to include technical schools or language schools attended.

## Employment Record

Employer	Position	Period of employment ( YYYY / MM )	
		From	To
		From	To
		From	To
		From	To

## Qualifications and Licenses

		Date
		Date
		Date

## Achievements

		Date
		Date

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### Examination Admission Slip

Application No.	* Official use only.
Name	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	

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## Photo ID Card

Application No.	* Official use only.
Name	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	
<div data-bbox="644 904 925 1267" style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;">Paste photo. (4.5cm x 3.5cm)</div>	

Note: 1. Photo must be taken within 3 months prior to application.

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### Master's Thesis Abstract (No. 1)

Application No.	* Official use only.
Name of Applicant	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	
Graduate School Attended	
Master's Thesis Title	

Special Entrance Examination for International Students

Special Entrance Examination for International Students  
Graduate School of International Resource Sciences, Akita University

### Master's Thesis Abstract (No. 2)

Application No.	* Official use only.
Name of Applicant	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	

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## Research Plan

Application No.	* Official use only.
Name of Applicant	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	





Special Entrance Examination for International Students

Graduate School of International Resource Sciences, Akita University

### Record of Academic Achievements (No.2)

Application No.	* Official use only.		
Name of Applicant			
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science		
Expected Supervisor			
Titles of papers, presentations, reports, patents, etc.	Year, volume, page, etc	Name of publisher, journal, academic society, etc.	Other (Co-author or co-presenter)

Note: 1. Enter the information in chronological order.

2. Copies of academic papers are required.

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Special Entrance Examination for International Students

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## Pre-evaluation Request for Application Qualification

I intend to apply for the Doctoral Program offered by Akita University, Graduate School of International Resource Sciences. I hereby request for the Pre-evaluation of Application Qualification.

Date: Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Name of Applicant: \_\_\_\_\_

Date of Birth (Age): Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_ (Age \_\_\_\_\_)

Field :  Earth Resource Science  Earth Resource Engineering and Environmental Science

Last School Graduated from: \_\_\_\_\_  
(Enter names of faculty and course.)

Date of Graduation: Year \_\_\_\_\_ Month \_\_\_\_\_ Day \_\_\_\_\_

Present Position: \_\_\_\_\_  
(Enter organization, department, and title.)

Contact Address

Country: \_\_\_\_\_

Postal code: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Tel Number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Name: \_\_\_\_\_

# Curriculum Vitae

## Educational Background

School Name	Required Number of Years Schooling you have attended	Year and Month of Entrance and Completion ( YYYY / MM )	Diploma or Degree Awarded
Elementary Education / Elementary School	Years	From	
		To	
Secondary Education / Lower Secondary School	Years	From	
		To	
Secondary Education / Upper Secondary School	Years	From	
		To	
Higher Education / Undergraduate level	Years	From	
		To	
Higher Education / Graduate level	Years	From	
		To	
	Years	From	
	Years	From	

Be sure to include technical schools or language schools attended.

## Employment Record

Employer	Position	Period of employment ( YYYY / MM )	
		From	To
		From	To
		From	To
		From	To

## Qualifications and Licenses

		Date
		Date
		Date

## Achievements

		Date
		Date

Special Entrance Examination for International Students

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### Academic Record for Approval of Application Qualification

Application No.	* Official use only.
Name of Applicant	
Date of Birth (Age)	Year      Month      Day      (Age      )
Current Employment	
Field	<input type="checkbox"/> Earth Resource Science <input type="checkbox"/> Earth Resource Engineering and Environmental Science
Expected Supervisor	
Academic History	
Employment History	
Community and/or Academic Society Activities	

Note: 1. Attach Record of Academic Achievements.

2023 October (Fall) Admission

Doctoral Program

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## Proof of Evaluation Fee Payment Form

Application Number: \*

Applicant's Name: \_\_\_\_\_

Field:  Earth Resource Science  Earth Resource Engineering and Environmental Science

Paste Proof of Payment for Evaluation Fee

Note: 1. \* Official use only.

2. Make sure the Proof of Payment is securely pasted and the date of payment is visible.