

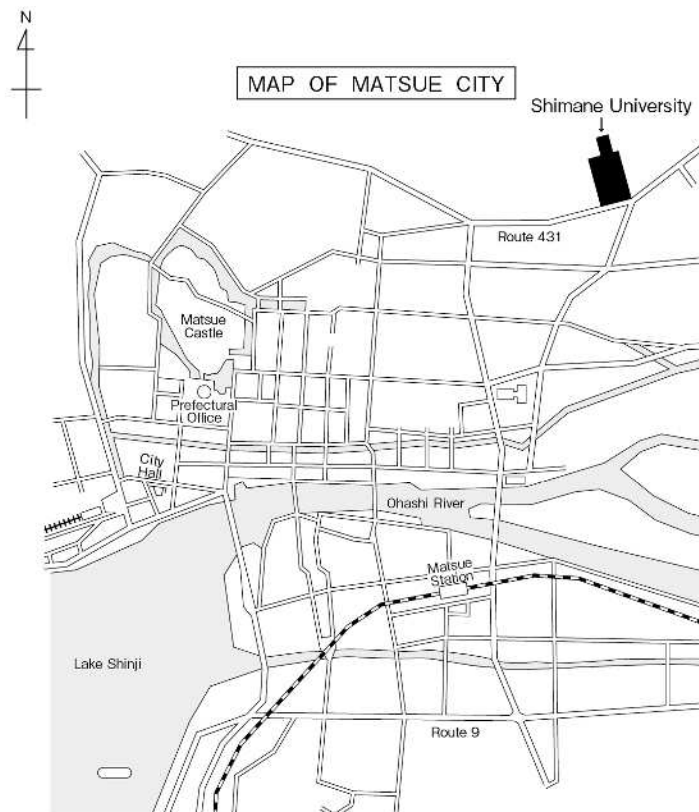
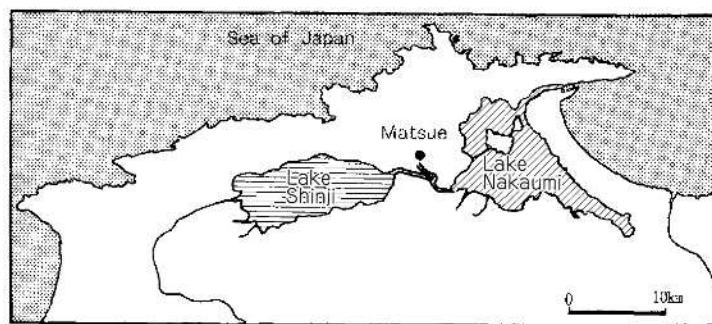
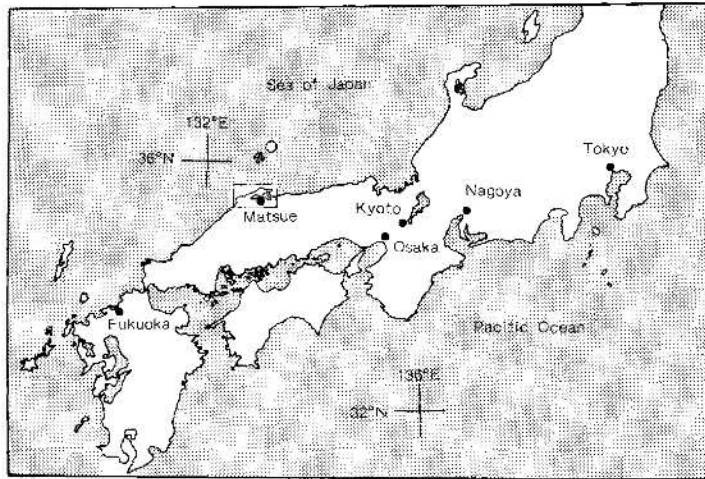
SPECIAL PROGRAM  
FOR PRIVATELY-FINANCED INTERNATIONAL STUDENTS  
– GRADUATE SCHOOL OF NATURAL SCIENCE AND TECHNOLOGY –

APPLICATION GUIDEBOOK  
FOR THE 2024 ACADEMIC YEAR

SHIMANE UNIVERSITY

MATSUE, JAPAN

2024



# SPECIAL PROGRAM

## FOR PRIVATELY-FINANCED INTERNATIONAL STUDENTS - GRADUATE SCHOOL OF NATURAL SCIENCE AND TECHNOLOGY- SHIMANE UNIVERSITY, FOR THE 2024 ACADEMIC YEAR

英語による留学生プログラム  
島根大学大学院自然科学研究科博士前期課程  
私費外国人留学生・学生募集要項 2024 年度

### 【NOTE】

When unpredictable incidents, such as large-scale disaster, make it difficult to accomplish the entrance examination by the methods announced in the application guideline, or major traffic incidents affect many examinees, the methods of the examination, including examination time, date, selection method, and date of announcement of the results, may be changed.

In that case, the changes will be announced in the following website immediately after decision:

[https://www.shimane-u.ac.jp/en/study/future\\_students/](https://www.shimane-u.ac.jp/en/study/future_students/)

The Graduate School of Natural Science and Technology, Shimane University recruits prominent international students for the SPECIAL PROGRAM of the two-year Master Course Program. This is for the students funded privately.

### 1. ADMISSION POLICY (入学者受入方針)

The Graduate School of Natural Science and Technology seeks students who meet the following criteria:

- Students who have scientific knowledge and skills in their major at the level of undergraduate completion (master's degree completion for doctoral candidates).
- Students who have a desire and clear purpose to pursue academic research and scientific investigation, and strive for a new era to deepen mutual understanding with others through dialogue.
- Students who are concerned about domestic/international issues and enthusiastically seek cooperative solutions.
- Students who wish to improve and deepen their professional knowledge or skills through job experience.
- Students who wish to take on a leadership role in industry, government, education, academia and medical services in local and global communities.

Prospective students

The Graduate School of Natural Science and Technology aims to foster students capable of contributing towards our Sustainable Development Goals and in advancing science and technology with a comprehensive and integrated approach. This allows the development of young, creative and ambitious experts who are well-trained in logical analysis and will help solve

regional social problems. Our education curricula develop graduate students who are confident in the fields of Basic Science, Engineering or Life and Environmental Science, and who can contribute to the creation of a world in favor of equity and the full realization of all human rights. In this context, each education program selects students according to the following admission policy.

Basic policy for admission (Evaluation methods, specifically with how to assess learning in undergraduate programs)

Major in Science and Engineering, Major in Environmental System Science and Major in Life Science courses have various entrance examinations through which students with different abilities or visions are selected. In the recommended entrance examination, candidates are evaluated in terms of their undergraduate scores, speaking ability, research interests and future aspirations. In the general entrance examination, evaluation is conducted through interviews and/or a written test for basic knowledge in the research area of interest, research capability and desire, as well as an undergraduate's transcript. In the entrance examinations for working professionals, foreign students, and joint bachelor-master programs (A and B), overall evaluation is also done by interview, English-language proficiency tests as measured by TOEFL/TOEIC or equivalent tests, or written essays, depending on the type of examination chosen.

## **2. PURPOSE OF THE SPECIAL PROGRAM (設置目的)**

The SPECIAL PROGRAM (SP) is designed to learn advanced education such as: Advanced Materials Science and Engineering, Mathematics, Information Systems Design and Data Science, Physics and Applied Physics, Mechanical Electrical and Electronic Engineering, Earth Science, Environmental and Sustainability Sciences, Chemistry, Architectural Design, Life Sciences and Agricultural and Forest Sciences. The courses are provided for students to learn the basic and applied sciences and enable them to conduct appropriate measures to deal with Science and Engineering, Science of Environmental Systems and Agricultural and Life Sciences. Further, students are expected to be leaders of their special field

## **3. CURRICULUM PROCEDURE (教育方法)**

The SPECIAL PROGRAM (SP) is a two-year Master's course. The students in this program have to earn more than 30 credits and are required to submit a Master's thesis to obtain their degree in Master of Science. Engineering or Life and Environmental Science. They must also pass the final examination to obtain a degree. All lectures and research activities are provided in English by our faculty members. Some necessary advice is given by them as well.

## **4. FIELDS OF STUDY (専攻分野)**

The applicants should select their field of study from the lists offered by the Graduate School of Natural Science and Technology. The courses are:

**Major in Science and Engineering (理工学専攻)**

Advanced Materials Science and Engineering (先端材料工学)  
 Mathematics (数理科学)  
 Information Systems Design and Data Science (知能情報デザイン学)  
 Physics and Applied Physics (物理・応用物理学)  
 Mechanical, Electrical and Electronic Engineering (機械・電気電子工学)  
 Major in Science of Environmental Systems (環境システム科学専攻)  
 Earth Science (地球科学)  
 Environmental and Sustainability Sciences (環境共生科学)  
 Chemistry (物質化学)  
 Architectural Design (建築デザイン学)  
 Major in Agricultural and Life Sciences (農生命科学専攻)  
 Life Sciences (生命科学)  
 Agricultural and Forest Sciences (農林生産学)

## 5. NUMBER OF STUDENTS TO BE ADMITTED (募集人数)

The number of students to be admitted: Several

## 6. QUALIFICATIONS FOR APPLICATION (出願資格及び条件)

International student applicants from within or outside Japan should possess the following qualifications:

### 5-(1) Nationality (国籍):

Applicants should be of nationalities approved by the Japanese Government or have already lived in Japan.

### 6-(2) Age (年齢):

No limitation of age if the condition such as academic background, or necessary qualifications are satisfied.

### 6-(3) Academic Background (学歴):

Applicants should satisfy one of the following items:

- (3)-① Those who have completed a 16-year formal school education in foreign countries or who are expected to have graduated from such.
- (3)-② Those who have completed an academic program of either a foreign university or a foreign educational institution (limited to which its comprehensive progress of education and research have been evaluated by an external personnel certified by its government or its related agency, or an institution designated as equivalent by the Minister of Education, Culture, Sports, Science and Technology) whose term of study is at least 3 years or more (including completion of the said program in our country earning credits from its institution's correspondence course or from an educational facility established in Japan under the school education system of the said foreign country designated in the preceding issue), and have earned or expect

to earn by March 31, 2024, a bachelor's degree or an equivalent degree.

**(3)-③** Those who were recognized to be equivalent or superior to university graduates in scholastic performance through the deliberation individually given by the Graduate School of Natural Science and Technology, Shimane University and fulfill the qualification of 22 years in age by March 31, 2024.

※ Those who fall under article (3)-③ above have to consult with Admissions Division, Shimane University, for prior certification and confirmation of their qualification by Monday, October 23, 2023.

**6-(4) Health Condition (健康) :**

Applicants should be in good mental and physical health condition.

**6-(5) Language Proficiency (語学能力) :**

A good working level in English is required.

**6-(6) Residence Status (在留資格)**

Applicants must hold the residence status of "College Student" at the time of admission.

**7. APPLICATION PROCEDURE (出願手続き)**

**7-(1) Documents for Application (出願書類)**

Applicants should submit the following documents.

All application documents must be written in Japanese or English. If the document is written in another language, a Japanese or English translation must be attached.

**7-(1)-① Application Forms for Privately-financed International Students**

**(私費外国人留学生入学申請書)**

- ①-a Use the form prescribed by Shimane University only.
- ①-b Applicants must fill in the prospective supervisor's name in the form.
- ①-c Please note that if applied without supervisor's name, the application might not be accepted.
- ①-d Applicants are required to contact and consult with their prospective supervisors at Shimane University approximately one month before the application.  
Both applicants and their prospective supervisors must reach an agreement on the applicants' research plan based on previous academic activities before the application is processed.

**7-(1)-② A Certificate of Health (健康診断書)**

Fill in the prescribed form completed by the public medical doctor within six months of application date.

**7-(1)-③ An Official Graduation Certificate (卒業証明書等)**

- ③-a An official certificate of graduation from college (and graduate school), or
- ③-b A statement of completion of the under-graduate program by the end of March 2024, or
- ③-c A copy of the Degree of the Bachelor (and Master's Degree) of Science.

**7-(1)-④ A Transcript of Academic Records (成績証明書)**

A transcript of academic records of a university (or graduate school) with English translation issued by the school attended by the applicant.

**7-(1)-⑤ TOEFL or TOEIC, etc. (英語能力証明書)**

A copy of the record of TOEFL or TOEIC, etc.

**7- (1)-⑥ Thesis of Bachelor (Master) of Science, etc. (学士論文等)**

- ⑥-a A copy of the thesis and the summary of Bachelor of Science if the applicant has completed college, or the equivalent materials if the thesis is not available.
- ⑥-b A report of research if the applicant is still in college.
- ⑥-c A copy of the thesis and the summary of Master of Science if the applicant has completed graduate school, or the equivalent materials if the thesis is not available.
- ⑥-d A report of research if the applicant is still in graduate school.

**7-(1)-⑦ Published Papers, etc. (既発表論文等)**

Reprints or copies of their published papers or a copy of the manuscripts submitted for journals, etc.

**7-(1)-⑧ Family Register, etc. (戸籍謄本等)**

A certificate of the family register, the citizenship issued by the applicant's municipal authority or a copy of passport.

**7-(1)-⑨ A Recommendation Letter (推薦書)**

A Recommendation Letter from the professor who has taught the applicant, or the advisors who know well about the applicant's research.

**7-(1)-⑩ Photographs (写真)**

- ⑩-a Passport sized 2 photographs (4.5cm x 3.5cm) showing a front face, up-from-bust, uncover headed. They should be taken within 6 months of the application date. The applicant's name and nationality should be written on the reverse side.
- ⑩-b One photograph should be pasted on the application form (attached form).
- ⑩-c One photograph should be enclosed in the envelope together with the application documents.

## 7-(1)-⑪ Entrance Examination Fee Certificate of Payment (入学検定料振込金証明書)

### ⑪-a In case of transferring entrance examination fee from Japan

When applicants transfer the "Entrance Examination Fee" through the bank by downloading the forms such as bank transfer form for "Entrance Examination Fee" in the year 2024 from Shimane University's website, applicants are requested to fill out the form before going to the bank. Applicants can pay through financial institutions such as City Banks (TOSHI GINKO), Regional Banks (CHIHOKU GINKO), Credit Union Banks (SHINYO KINKO), Japan Agriculture Cooperative Banks (JA) or YUCHO-GINKO BANK. (Be sure to take banknote (TSUCHOH in Japanese) and personal seal (INKAN in Japanese) with you).

Applicants cannot send cash.

Applicants must transfer "Entrance Examination Fee" amounting 30,000 yen by filling out the "Bank Transfer Form" (above mentioned).

Handling time and period is as follows:

By 3:00p.m. (Bank is open until 3:00p.m.),

Monday, November 13 through Friday, November 24

Do not use ATM (Automatic Teller Machine).

Applicants must enclose the "Certificate of Bank Transfer" (Bank Form -Ⅲ) issued by the bank with application documents. The certificate is to be submitted to Shimane University.

(Note)

If the applicant wishes to ask a proxy living in Japan to transfer the "Entrance Examination Fee", the applicant's own full name should be written on the documents for bank transfer form etc.

### ⑪-b In case of transferring "Entrance Examination Fee" from abroad

In case you wish to transfer "Entrance Examination Fee" from abroad, please contact the below mentioned contact place by filling in the subject: "Concerning the payment of entrance examination fee for SPECIAL PROGRAM for Privately-Financed International Students". We will instruct you how to transfer money. Please specify your full name and the reason for not being able to transfer money from Japan.

Contact Place:

Admission Division, Shimane University

E-mail : ns-nyushi@office.shimane-u.ac.jp

After transferring "Entrance Examination Fee" amounting 30,000yen, scan "Application Form for Remittance (overseas)" (Photograph will be accepted) and send it to the e-mail address of the contact place. Also, applicants are requested to enclose a copy of "Application Form for Remittance" which certifies that "Entrance Examination Fee" has been paid. Make sure to keep the original of the Form with care.

(Note)

In case the transferred "Entrance Examination Fee" is short of the required amount, or the fee is not transferred by 5:00 p.m. (Japan time) of the deadline date, the transferred "Entrance Examination Fee" to the account cannot be accepted. The application itself will not be accepted either.

It requires more time to remit money than the applicants might expect. Applicants are advised to confirm the due date to the bank beforehand. The early action of remittance is recommended.

In case the "Entrance Examination Fee" has come to an over-payment, the overpaid

fee will be refunded, however, the commission must be paid by the applicants. Please note that if the commission itself comes to be more than the "overpaid amount", it will not be paid back.

#### ⑪-c Refund Policy

Once "The Entrance Examination Fee" has been paid, the fee cannot be refunded for any reason except for the following cases:

- (1) If application forms cannot be accepted due to deficiency. In that case, the applicants are contacted and required to take necessary process.
- (2) If application is cancelled, after payment of the entrance examination fee.
- (3) If the entrance examination fee is paid twice by mistake.

If the applicant's payment falls under the category (2) or (3) above, the paid "Entrance Examination Fee" can be refunded according to the declaration by the applicant. Applicants are requested to contact the address below by filling in the subject "Concerning the refund of entrance examination fee for SPECIAL PROGRAM for Privately-Financed International Students" by Monday, December 4, 2023. Please specify the reference number (SEIRI BANGO in Japanese), applicant's full name, and paid date (or transferred date), then contact the below:

##### Contact Place:

Bursar's Office (Financial and Accounting Division), Shimane University

E-mail : apd-suito@office.shimane-u.ac.jp

##### (Note)

During the refund process, Bank Form-II "Receipt for Transferred Money" (applicants keep) and Bank Form-III, which certifies the "Entrance Examination Fee Remittance" (to be submitted to Shimane University), are needed. When the applicants transfer money from abroad, "Application Form for Remittance" is needed. So keep these documents with caution.

If we cannot confirm these documents, the refund may not be done.

Also please note that the commission should be paid by the applicant. Further, if the commission comes more than the refund amount, the refund will not be done.

#### 7-(2) Application Period (出願期間)

The office hours of Admission Division (below) are:

**From 9:00 a.m. to 5:00 p.m., from Monday through Friday.**

**(Except national holidays)**

Application should be made:

**From Monday, November 20, 2023 to Friday, November 24, 2023.**

**(Except national holidays)**

Applicants must send the application documents by the **registered express mail**. The application documents must arrive by 5:00 p.m., **November 24, 2023**. For the documents arrived after this period, only the documents with a postmark until, **November 23, 2023** will be accepted.

#### 7-(3) Submission of Application (出願書類提出先)

All application materials should be submitted to:

**Admissions Division, Shimane University**

**1060 Nishikawatsu-cho, Matsue, Shimane Prefecture**

**690-8504, Japan**

## 8. Selection Process (入試方法)

### 8-(1) Interview(面接)

**Internet Interview:** Some prospective supervisors will carry out the interview.

**Interview date:** Monday, December 11, 2023 through Tuesday, December 19, 2023.

### 8-(2) Selection (選考)

The selection is to be made generally based on the submitted application documents and the above interview.

A total score of at least 60% is required. Candidates are accepted by ranking their scores until the full quota is met. Candidates with the same scores are regarded as having the same rank.

\* The examinee must be alone in the room when taking the examination.

To create quiet conditions, please be sure that the door is locked or a sign is posted such that no one can enter the room.

\* If you have any problems in connecting to the internet or else before the examination, please let your prospective supervisor know immediately. When we do not receive any response through the internet or other means from the examinee for a certain amount of time after the scheduled start time, the examinee may be counted absent.

## 9. An Announcement of Admission (合格者の発表)

### 9-(1) An Announcement of Admission (通知方法)

An official notice will also be sent to successful applicants or their nominees. The applicants will not be informed by e-mail or facsimile.

Announcement of results: 11:00 a.m. Friday, January 12, 2024.

※ Visit the following website for the announcement of the successful applicants.

URL <https://www.shimane-u.ac.jp/en/admission/>

### 9-(2) Tuition, etc. (学費等)

**Admission Fee (入学料): ￥282, 000. —**

**Tuition (授業料・年額): ￥535, 800. —/year**

- (2)-① Please note that if the amount of tuition changes while attending the University, the new tuition will be applied.
- (2)-② Please also note that there is a tuition exemption system by which the total amount or half amount of tuition would be exempted from the tuition. However, note that not all applicants will be granted the exemption. The system would be applied to the applicant after the proper screening.

## **10. The Entrance Time of Year (入学の時期)**

**April, 2024**

## **11. Remarks (注意事項)**

**11-(1)** All the application documents should be sent by registered mail.

**11-(2)** With the enrollment, the new international students are advised as follows:

Although all the lectures or research activities will be given in English, the students should check about Japan before they come, especially Japanese climate, custom, weather and about Shimane University how it is like. Further, the students are advised to use Japanese language in their daily life.

## **12. Inquiries (問合せ先)**

All inquiries should be to:

**Admissions Division, Shimane University**

**FAX: +81-852-32-6059**

**E-mail : ns-nyushi@office.shimane-u.ac.jp**

## OUTLINES OF PROGRAM

### Major in Science and Engineering

#### Advanced Materials Science and Engineering

Advanced Materials Science and Engineering course contains three academic fields for materials science and engineering.

Materials Characterization and Testing field aims to determine new criterion to control mechanical properties. For the purposes, we observe microstructures and defects in materials from atomic to macroscopic scale using microscopies, diffraction analyses and the other methods. Various mechanical properties of materials are also measured under various conditions.

Materials Processing field aims to develop and to enhance materials processing systems with properties control. The materials processing systems are applied to not only bulky but also film and nano-sized materials. The field also focus on forming processes, e.g. cutting and welding.

Materials Computational Modeling field aims to understand material properties and create new criterion to control materials using computational modeling and simulation of materials. The field also contains machine learning and data science, which are important to materials data analysis.

### Mathematics

Mathematics course is divided into two parts: pure mathematics and applied mathematics. In the pure mathematics part, we present opportunities where students study algebra, geometry, topology, ordinary differential equations, function differential equations, difference equations and complex analysis. Also in the applied mathematics part, we present opportunities where students study partial differential equations, optimization theory, mathematical statistics, mathematical modeling, mathematical biology and functional equations.

### Information Systems Design and Data Science

The Information Systems Design and Data Science Course aims to foster people who want to learn theoretical backgrounds of computer software and hardware, to practice production of such systems, and to engage in research of novel technologies and methods in this area.

The course covers various topics in theoretical foundations and applications of information systems and data engineering.

The topics of data engineering include intelligent information processing, probability theory and statistics, machine learning, information retrieval. The topics about information systems include network, well-being information technology, digital design and design methodology, program analysis, term rewriting system, automated theorem proving, and algorithm and complexity theory.

## Physics and Applied Physics

This course covers following academic fields.

- Fundamental Physics, covering theoretical studies of quantum field theory and elementary particle physics, theoretical and experimental studies of magnetic, superconducting and other properties of strongly correlated materials at low temperatures, and computational physics.
- Crystal Science and Engineering, covering characterization of crystal structures, defects and microstructures in order to elucidate the physical properties of materials. This field also aims to develop and to enhance materials processing systems with properties control.
- Electronic Device Engineering, covering semiconductor superlattices and quantum structures, compound semiconductor photonic devices, crystal growth of compound semiconductors, large area electronics, transparent conducting films, organic semiconductor devices, superconductors, and advanced electronic materials design.

## Mechanical, Electrical and Electronic Engineering

- Mechanical Engineering

Mechanics and design of soft materials and flexible structures, Sound and vibration measurement, Design and performance analysis of gear devices used as robot joints, Damping and transfer control for wheeled mobile robots and carts, Fluid dynamic design of vehicles and engines, Analysis of resonance phenomenon and reduction of vibration.

- Electrical and Electronic Engineering

Remote sensing using electromagnetic waves, Development of optical metrology systems, Development of optical fiber sensing systems, Optical and photonic systems, Development of communication aids, Development of compressed sensing systems, 3D measurement and telecommunication by using lasers.

## Major in Science of Environmental Systems

### Earth Science

The Course promotes an in-depth understanding of Earth Science and provides advanced studies on frontier topics in Geoscience based on Geology. Students can specialize in one out of three research fields:

- 1) Geoscience: Research on constituents of the earth's interior such as rocks, minerals and earth resources and the circulations of material, including ore and resource formation processes.
- 2) Geoenvironmental Science: Research on formation processes of strata and geological structures in sedimentary basins, environmental geology of estuaries and deltas as well as historical geology and paleontology.
- 3) Geo-disaster Science: Research on mechanical properties of soil, rocks, and rock mass, geotechnical properties of alluvial deposits and their environmental evaluation, groundwater simulation, and natural hazards.

## Environmental and Sustainability Sciences

The Environmental and Sustainability Sciences (ESS) course aims at contributing to the realization of a prosperous society for which nature and humankind truly coexist. The ESS course provides students with capabilities necessary to understand, evaluate, manage and preserve environmental resources ranging from matter to life. Students learn various approaches to cope with environmental issues with a solid sense of responsibility and ethics. Our graduates have many career opportunities ahead of them as researchers, teachers, engineers, and administrative officials who can lead community activities in an environmentally friendly manner.

## Chemistry

The Chemistry Course offers comprehensive programs encompassing diverse fields of fundamental chemistry and applied chemistry including environmental chemistry, green and sustainable chemistry, and functional materials chemistry, in order to educate future engineers and researchers.

## Architectural Design

In Architectural Design Course, researches on various issues related to urban planning, architectural planning, building structure, building environment and so on are conducted. This master's degree program aims to nurture human resources who have creativity and judgment capability based on comprehensive perspective by providing students with scientific and technological knowledge and evaluation methodology of architectural fields through experiments and lectures.

By completing certain subjects of this course, students will be recognized to have a maximum of two years practical building-related experience which is required to be eligible for taking examinations of a first-class architect qualification.

We welcome all students who are interested in urban planning, architectural planning, building structure and building environment.

## Major in Agricultural and Life Sciences

### Life Sciences

The Life Science Course trains students to become experts or researchers who can contribute to our society with a basic knowledge of biological phenomena and high-level technical skills to utilize life- and bio-resources. In this course, the special classes deepen students' understandings to life-science fields by teaching basic mechanisms of life with diverse taxa including bacteria, plants and animals, as well as technology for analyzing gene expression and chemical components of organisms. In a series of seminars, students learn research backgrounds by reading scientific articles currently published in international journals. A special research program aims to foster students to have good abilities in conducting research and presenting the results, under the support of their mentors.

## Agricultural and Forest Sciences

The Agricultural and Forest Sciences (AFS) course aims at contributing to sustainable human life, appropriate systems of bio-production, and activation of agriculture and forestry through improving the technology. The AFS course consists of four fields: crop and livestock production, horticulture and plant science, agricultural economics, and forestry. Our students acquire profound knowledge in specialized technologies in agriculture, animal science, plant science, social science, and forestry. We train students to specialists with entrepreneurial spirits to create the future of agriculture and forestry.

## List of Curriculums and Instructors

Curriculum	Instructor
<b><i>Common Subject</i></b>	
Fundamentals of Natural Science and Technology	Prof. HIROHASHI N. Assoc. Prof. SZÖLLŐSI F. And 12 other staff
<b><i>Advanced Materials Science and Engineering</i></b>	
Metallic Materials	Prof. ARAKAWA K. and Prof. MORITO S.
Electronic Materials	Assoc. Prof. KITAGAWA H.
Advanced Plasma Surface Interaction	Prof. MIYAMOTO M.
Processing for Electronic Materials	Prof. YAMADA Y. and Assoc. Prof. KITAGAWA H.
Properties of Superconducting Materials	Prof. YAMADA Y. and Assis. Prof. FUNAKI S.
Advanced Electronic Materials Design	Prof. KAGESHIMA H.
Semiconductor Photonics Engineering	Prof. FUJITA Y.
Thin-film Materials and Devices	Prof. W. Yeh
Applied Thermo-fluid Dynamics	Prof. SHINJO J.
Practical Mechanical Design	Prof. S. Li
Mobile Network	Prof. KANZAKI A.
Advanced Topics on Knowledge Acquisition	Assis. Prof. SHIRAI M.
Practical First-Principles Calculation	Assoc. Prof. HIRAYAMA N.
Introduction to semiconductor thin film technologies	Assoc. Prof. YOSHIDA T.
Introduction to pair distribution function analysis	Assis. Prof. HIROI S.
Materials Science for Energy Technologies	Prof. YASHIRO K. and Assis. Prof. FUJISAKI T.
Advanced Applied Instrumental Analysis	Assoc. Prof. SAWANO T.
Advanced Organic Chemistry	Assoc. Prof. SAI M.
Polymeric Biomaterials	Prof. MORIMOTO N.
Advanced Bioengineering	Assoc. Prof. TOITA S.
Introduction to Mathematics for Informatics	Prof. FUJIWARA T. and Assis. Prof. SAKAI Y.
Error Control Coding	Assoc. Prof. KUSAKA T.
Seminar I	Academic Advisor
Seminar II	Academic Advisor
Seminar III	Academic Advisor
Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor

Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Mathematics Course</i></b>	
Functional Analysis	Prof. WADA T.
Advanced Algebra	Prof. UEDA A.
Algebraic Topology	Prof. YAMADA Takumi
Riemannian Geometry	
Theory of Statistical Science	
Differential Topology	Prof. YAMADA Takumi
Infinite dimensional topology	Assoc. Prof. MATSUHASHI E.
Lie Algebra	Assoc. Prof. SZÖLLŐSI F.
Homological Algebra	Assoc. Prof. FUJII S.
Numerical Approximation Methods	Prof. KUROIWA D.
Qualitative Theory of Ordinary Differential Equations	
Stability Theory of Ordinary Differential Equations	
Convex and Nonlinear Functional Analysis	Prof. KUROIWA D.
Elliptic Partial Differential Equations	
Hyperbolic Partial Differential Equations	Prof. WADA T.
Parabolic Partial Differential Equations	Prof. WADA T.
Complex Analysis	
Galois Cohomology	Prof. AOKI M.
Mathematical Finance	Assoc. Prof. SUZUKI S.
Mathematical Biology	Assoc. Prof. SAITO Y.
Algebraic Combinatorics	Assoc. Prof. GAVRILYUK A.
Seminar I	Academic Advisor
Seminar II	Academic Advisor
Seminar III	Academic Advisor
Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Information Systems Design and Data Science Course</i></b>	
Mobile Network	Prof. KANZAKI A.
ICT Helping Individuals with Special Needs	Prof. HIROTOMI T.
Program Analysis Methods	Prof. KAMIYA T.
Advanced Topics on Knowledge Acquisition	Assis. Prof. SHIRAI M.
Statistical Pattern Recognition	Prof. SAKANO H.
Information Logic	Assoc. Prof. IWAMI M.

Advance Computer Arithmetic	Assis. Prof. R. Mian
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor
Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Physics and Applied Physics Course</i></b>	
Metallic Materials	Prof. ARAKAWA K. and Prof. MORITO S.
Electronic Materials	Assoc. Prof. KITAGAWA H.
Advanced Plasma Surface Interaction	Prof. MIYAMOTO M.
Processing for Electronic Materials	Prof. YAMADA Y. and Assoc. Prof. KITAGAWA H.
Low Temperature Physics	Prof. FUJIWARA K. and Assoc. Prof. MOTOYAMA G.
Physics on Magnetic Materials	Prof. MIYOSHI K. and Assoc. Prof. NISHIGORI S.
Magnetism in Metals	Prof. MIYOSHI K. and Assoc. Prof. NISHIGORI S.
Properties of Superconducting Materials	Prof. YAMADA Y. and Assis. Prof. FUNAKI S.
Advanced Lectures on Electronic States in Solid State Physics	Assoc. Prof. MUTOU T.
Theory of Electrons in Solids	Prof. TANAKA H.
Statistical Field Theory	Assoc. Prof. MOCHIZUKI S.
Advanced Electronic Materials Design	Prof. KAGESHIMA H.
Semiconductor Photonics Engineering	Prof. FUJITA Y.
Thin-film Materials and Devices	Prof. W. Yeh
Vibrational Spectroscopy	Assoc. Prof. TSUKADA S.
Introduction to semiconductor thin film technologies	Assoc. Prof. YOSHIDA T.
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor
Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor

<b><i>Mechanical, Electrical and Electronic Engineering Course</i></b>	
Practical Mechanical Design	Prof. S. Li
Robotics	Assoc. Prof. HAMAGUCHI M.
Solid Mechanics	Assoc. Prof. MORIMOTO T.
Advanced Dynamics of Machinery	Assoc. Prof. TAMURA S.
Atmospheric Remote Sensing	Assoc. Prof. SHIMOMAI T.
Optical Metrology	Prof. YOKOTA M.
Fundamentals of Photonics	Prof. MASUDA H.
Coherent Optical Engineering	Prof. ITO F.
Applied Thermo-fluid Dynamics	Prof. SHINJO J.
Power Converters and Control for Renewable Energy Systems	Assoc.Prof. Nguyen G. M. T.
Coherent Optics and Holography	Assoc. Prof. KUMAR V.
Seminar I - 4	Academic Advisor
Seminar II - 4	Academic Advisor
Seminar III - 4	Academic Advisor
Seminar IV - 4	Academic Advisor
Thesis Research I - 4	Academic Advisor
Thesis Research II - 4	Academic Advisor
Thesis Research III - 4	Academic Advisor
Thesis Research IV - 4	Academic Advisor
<b><i>Earth Science Course</i></b>	
Earth and Earth Resource Science	Prof. SAMPEI Y., Prof. KAMEI A., Assoc. Prof. OHIRA H., Assoc. Prof. MASUMOTO K., Assoc. Prof. MUKOYOSHI H., Assoc. Prof. AUER A., Assoc. Prof. ENDO S., Assis. Prof. A. S. SILPA.,
Earth and Geoenvironmental Science	Prof. IRIZUKI T., Prof. SAKAI T., Prof. HAYASHI H., Assoc. Prof. KOGURE T., Assis. Prof. SHIBI T., Assis. Prof. L. SREEHARI., Assoc. Prof. TSUJIMOTO A., Assoc. Prof. SETO K., Assoc. Prof. KATSUKI K.

Metamorphic Petrology	Assoc. Prof. ENDO S.
Mineral Science of Transition Elements-bearing Minerals	Assis. Prof. A. S. SILPA.
Advanced Structural Geology	Assoc. Prof. MUKOYOSHI H.
Advanced Petrochemistry	Prof. KAMEI A.
Environmental Paleontology	Prof. IRIZUKI T.
Sedimentary Geology	Prof. SAKAI T.
Biostratigraphy	Prof. HAYASHI H.
Theory of Global Environmental Change	Assoc. Prof. SETO K.
Engineering Geology	Assoc. Prof. KOGURE T.
Groundwater Hydraulics	Assoc. Prof. MASUMOTO K.
Geotechnical Analysis	Assis. Prof. SHIBI T.
Science of Fossil Fuel	Prof. SAMPEI Y.
Resource Geology	Assoc. Prof. OHIRA H.
Advanced Volcanology	Assoc. Prof. AUER A.
Marine Environmental Science	Assoc. Prof. TSUJIMOTO A.
Quaternary Environmental Science	Assoc. Prof. KATSUKI K.
Global Tectonics	Assis. Prof. L. SREEHARI.
Special Lecture in Earth and Geoenvironmental Science I	
Special Lecture in Earth and Geoenvironmental Science II	
Excursions in Earth and Geoenvironmental Science	Earth Science Course Staff.
Seminars on Current Topics and Methods I	Assoc. Prof. AUER A.
Seminars on Current Topics and Methods II	Assoc. Prof. AUER A.
Special Practice I	Earth Science Course Staff.
Special Practice II	Earth Science Course Staff.
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor
Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Environmental and Sustainability Sciences Course</i></b>	
Advanced Nonpoint Sources and Hydrology	Prof. TAKEDA I.
Modeling Approaches for Advanced Watershed Management	Prof. YAJIMA H.
Fluid Dynamics on Land Surface and in Soil	Assis. Prof. SATO H. and Assis. Prof. FUKADA K.
Advanced Structural Analysis and Design	Assoc. Prof. ISHII M.
Advanced Bio-environmental Measurement	Prof. YANO A.

Advanced Forest Ecology	Assoc. Prof. KUBO M., Assoc. Prof. YAMASHITA T. and Assis. Prof. FUJIMAKI R.
Advanced Plant Pathology	Prof. UENO M.
Environmental Microbiology	Assis. Prof. HAYASHI S.
Insect Ecology	Prof. MIYANAGA R. and Assoc. Prof. IZUMI Y.
Advanced Environmental Technology and Engineering	
Fish Ecology	Assoc. Prof. HORINOUCI M.
Marine Ecology	Assoc. Prof. KURATA K.
Soil Science	Prof. MASUNAGA T.
Soil Ecological Engineering	Assoc. Prof. SATO K.
Aquatic Ecological Engineering	Prof. YAMAGUCHI K.
Advanced Environmental Eco-Engineering	Prof. KUWABARA T.
Analytical Atomic Spectrometry	
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor
Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Chemistry Course</i></b>	
Advanced Inorganic Chemistry I	
Advanced Inorganic Chemistry II	Assoc. Prof. IKEUE T.
Advanced Organic Chemistry I	Prof. NISHIGAICHI Y.
Advanced Organic Chemistry II	Assoc. Prof. NAKATA K.
Advanced Organic Chemistry III	Assoc. Prof. SUZUKI M.
Advanced Catalyst Design	
Advanced Catalyst Science	Assoc. Prof. KUBOTA T.
Advanced Functional Polymers I	Assoc. Prof. IIDA H.
Advanced Functional Polymers II	Prof. YAMAGUCHI I.
Advanced Ceramic Materials	Prof. MIYAZAKI H.
Advanced Physical Chemistry	Assoc. Prof. TSUJI T.
Advanced Environmental Material Chemistry	Assoc. Prof. SUGAHARA S.
Advanced Inorganic Material Science and Engineering I	Prof. TANAKA H.
Advanced Inorganic Material Science and Engineering II	Assoc. Prof. ATARASHI D.
Advanced Fiber Materials	Prof. TAKAHASHI T.
Advanced Surface and Interface Chemistry	Prof. SASAI R.

Advanced Biomaterial Physics	Prof. YOSHIHARA H.
Advanced Recycling Technology of Polymeric Materials	Assoc. Prof. YOSHINOBU M.
Advanced Molecular Biology	Assoc. Prof. KATOH S.
Advanced Coordination Chemistry	Assoc. Prof. KATAOKA Y.
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor
Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Architectural Design Course</i></b>	
Atelier Practice of Architectural Design I	Prof. SENDAI S. and Assis. Prof. MISHIMA S.
Atelier Practice of Architectural Design II	Prof. SENDAI S. and Assis. Prof. MISHIMA S.
Atelier Practice of Architectural Design III	Prof. HOSODA T. and Assis. Prof. INOUE R.
Advanced Course of Building Structures I	Prof. SAWADA K.
Advanced Course of Building Structures II	Prof. SAWADA K.
Advanced Course of Building Structures and Living Environment	Prof. SAWADA K. and Assoc. Prof. SHIMIZU T.
Advanced Course of Environmental Engineering	Assoc. Prof. SHIMIZU T., Assis. Prof. NGUYEN T.L. and Assis. Prof. NGUYEN TRAN Y.K.
Seminar of Practice in Building Structure and Environmental Engineering	Prof. SAWADA K., Assoc. Prof. SHIMIZU T., Assis. Prof. NGUYEN T.L. and Assis. Prof. NGUYEN TRAN Y.K.
Advanced Course of Architectural Planning and Design	Prof. HOSODA T.
Advanced Course of Architectural History and Design	Prof. SENDAI S.
Advanced Course of Urban Design	Assis. Prof. INOUE R.
Advanced Course of Wooden Construction	Assoc. Prof. KOBAYASHI H.
Atelier Practice of Architectural Design	Prof. HOSODA T. and Assis. Prof. MISHIMA S.
Thesis Seminar I	Academic Advisor
Thesis Seminar II	Academic Advisor

Thesis Seminar III	Academic Advisor
Thesis Seminar IV	Academic Advisor
Thesis Research I	Academic Advisor
Thesis Research II	Academic Advisor
Thesis Research III	Academic Advisor
Thesis Research IV	Academic Advisor
<b><i>Life Sciences Course</i></b>	
Biology of Skin	Prof. MATSUZAKI T.
Theoretical Ecology	Assoc. Prof. MOUGI A.
Methodology of Plant Transformation	Prof. AKAMA K.
Developmental Biology	Assis. Prof. YAMAGUCHI Y.
Biology of Endosymbiosis	Prof. KODAMA Y.
Behavioral Ecology	Assoc. Prof. TAKAHARA T.
Biology of Reproduction	Prof. HIROHASHI N.
Genetic Engineering	
Advanced Molecular Biology	Assoc. Prof. KAINO T.
Advanced Plant Molecular Genetics	Prof. NAKAGAWA T. and Assis. Prof. HACHIYA T.
Advanced Biophysical Chemistry	Prof. YAMAMOTO T.
Biochemistry for Food and Health Science	Prof. MUROTA K. and Assoc. Prof. JISAKA M.
Pathophysiology	Prof. SHIMIZU H.
Plant Molecular Physiology	Prof. ISHIKAWA T.
Plant Stress Biology	Prof. MARUTA T.
Molecular Recognition	Assoc. Prof. YOSHIKIYO K.
Advance Organic Synthesis	
Methodological Principle of Molecular Biology	Assis. Prof. AKIHIRO T. , Assoc. Prof. MATSUO Y. and Assoc. Prof. NISHIMURA K.
Marine Ecogenetics	Prof. ARANISHI F.
Thesis Seminar I -9	Academic Advisor
Thesis Seminar II -9	Academic Advisor
Thesis Seminar III -9	Academic Advisor
Thesis Seminar IV -9	Academic Advisor
Thesis Research I -9	Academic Advisor
Thesis Research II -9	Academic Advisor
Thesis Research III -9	Academic Advisor
Thesis Research IV -9	Academic Advisor
<b><i>Agricultural and Forest Sciences Course</i></b>	
Production of Vegetables Grown in Hydroponics	

Functional Morphology in Rice	Assoc. Prof. KOBAYASI K.
Advanced Plant Breeding	Prof. KOBAYASHI N.
Conservation and Management of Plant Genetic Resources	Prof. MATSUMOTO T.
Biochemistry of Soil Fertility	Prof. MATSUMOTO S.
Plant Molecular Breeding	Assoc. Prof. NAKATSUKA A.
Advanced Livestock Production	Prof. ICHINOHE T. and Assis. Prof. SONG Sanghoun
Horticultural Crop Physiology	Prof. ESUMI T.
Advanced Technology for Protected Horticulture	Assoc. Prof. TANAKA H.
Plant Production Physiology	Assoc. Prof. KADOWAKI M. and Assis. Prof. SHIRO S.
Advanced Forest Policy and Utilization	Assoc. Prof. TAKAHASHI E.
Agricultural and Regional Economics	Assoc. Prof. YASUNAGA N.
Advanced Rural Planning	Assoc. Prof. MORI Y.
Advanced Development Economics	
Advanced Horticultural Plant Production	
Thesis Seminar I -10	Academic Advisor
Thesis Seminar II -10	Academic Advisor
Thesis Seminar III-10	Academic Advisor
Thesis Seminar IV-10	Academic Advisor
Thesis Research I -10	Academic Advisor
Thesis Research II -10	Academic Advisor
Thesis Research III-10	Academic Advisor
Thesis Research IV-10	Academic Advisor

## List of Advisors

### Advanced Materials Science and Engineering

Materials Characterization and Testing	Prof. ARAKAWA Kazuto	Characterization of local structures in materials by electron microscopy
	Prof. MORITO Shigekazu	Research on microstructural analysis methods for materials development with electron microscopies and electron diffraction analyses
	Prof. LI Shuting	Cutting performance and strength evaluations of metals, heat treatment of metals, strength and vibration analyses of metal structures
	Prof. OHARA Koji	Studies for structurally disordered functional materials
	Prof. YASHIRO Keiji	Ion-conductive materials can be widely used in energy-related fields, such as high-efficiency fuel cells and electrolysis cells that can synthesize fuel such as hydrogen from surplus electricity. We are conducting material development to improve the performance and create new functions of ion conducting materials.
	Prof. MIYAMOTO Mitsutaka	Research on characterization of fusion reactor materials
	Assoc. Prof. PHAM Hoang Anh	Research on the formation of materials microstructure during various manufacturing processes.
	Assis. Prof. HIROI Satoshi	Structural study for disordered crystalline materials
Materials Processing	Prof. YAMADA Yasuji	Research on processes (synthesis, crystal growth, and film deposition) and functional properties of oxides and conductive materials
	Prof. FUJITA Yasuhisa	Research on preparation and characterization of compound semiconductor thin films and nano-particles
	Prof. KITAMURA Toshihiro	Research on purification process and recycling process of metals
	Prof. YEH Wenchang	Single crystal growth of semiconductor film on amorphous by micro laser and its application to semiconductor devices
	Prof. MORIMOTO Nobuyuki	Design of polymeric biomaterials for drug delivery systems
	Assoc. Prof. KITAGAWA Hiroyuki	Research on novel powder metallurgical process for advanced materials preparation
	Assoc. Prof. SAWANO Takahiro	Efficient and Selective Synthesis with Metal-Organic Frameworks and Metal Complexes and Evaluation of Functional Materials
	Assoc. Prof. SAI Masahiro	Development of new synthetic reactions involving organometallic compounds
	Assoc. Prof. YOSHIDA Toshiyuki	Characterization of semiconductor particle layers and their transistor application
	Assoc. Prof. TOITA Sayaka	Development of biofunctional materials for regenerative medicine and disease research
	Assis. Prof. FUNAKI Shuhei	Research on development of novel fabrication methods in advanced functional materials for applications
	Assis. Prof. WAKABAYASHI Hideki	Characterization of microstructural formation during manufacturing process and mechanical properties of heat resistant alloys
Materials Computational Modeling	Prof. KAGESHIMA Hiroyuki	Research on materials for electronics based on computational physics
	Prof. SHINJO Junji	Simulation of metal structural strength and thermo-fluid dynamics in metal processing
	Prof. KANZAKI Akimitsu	Research on communication control and data management in advanced network environments
	Prof. FUJIWARA Toru	Information security and Error control coding

	Assoc. Prof. HIRAYAMA Naomi	Theoretical study of metals and semiconductors by first-principles calculation and molecular dynamic simulation
	Assoc. Prof. KUSAKA Takuya	The research area includes channel coding which is a base of high reliability communication and cryptography which is a base of secure communication.
	Assis. Prof. SHIRAI Masato	Research on Materials Computational Modeling based on Machine Learning
	Assis. Prof. KUTSUKAKE Asuka	Advancement of materials processing simulation and its automatic optimization
	Assis. Prof. FUJISAKI Takaya	My research focuses on ionic conductors such as protons and lithium ions flowing in battery electrolytes, and aims to demonstrate the improvement of their properties through calculations and experiments.
	Assis. Prof. SAKAI Yuta	Information theory, Shannon theory, Coding theory

### Mathematics Course

Pure Mathematics	Prof. UEDA Akira	Ring Theory
	Prof. YAMADA Takumi	Differential geometry
	Prof. AOKI Miho	Number theory
	Assoc. Prof. MATSUHASHI Eiichi	General topology and geometric topology
	Assoc. Prof. FUJII Satoshi	Algebraic Number Theory
	Assis. Prof. YAMADA Taiki	Discrete geometry, Graph theory
	Assis. Prof. OSHIMA Yoshiyuki	General topology
Applied Mathematics	Prof. KUROIWA Daishi	Optimization theory
	Prof. T. WADA Takeshi	Partial differential equations
	Assoc. Prof. SAITO Yasuhisa	Functional equations and mathematical biology
	Assoc. Prof. SUZUKI Satoshi	Nonlinear analysis and mathematical programming
	Assoc. Prof. SZÖLLŐSI Ferenc	Combinatorics
	Assoc. Prof. GAVRILYUK Alexander	Combinatorics and Discrete Mathematics
	Assoc. Prof. FUJIMOTO Kodai	Ordinary differential equations

### Information Systems Design and Data Science Course

Data Science	Prof. SAKANO Hitoshi	Data science, Pattern recognition and Machine learning
	Assoc. Prof. ISHIHARA Yukio	Soft computing, Virtual reality, Human computer interaction
	Assoc. Prof. FUJIMOTO Kodai	Ordinary differential equations
	Assis. Prof. SHIRAI Masato	Data science, Machine learning
	Assis. Prof. SAKAI Yuta	Information theory, Shannon theory, Coding theory
	Assis. Prof. OSHIMA Yoshiyuki	General topology
	Assis. Prof. CHENG Yun-Shan	Interdisciplinary social science and engineering, such as Data mining, Recommendation system, Gaming, Player's/Social networking sites user's behaviors

Information Systems Design	Prof. KAMIYA Toshihiro	Software engineering, Program analysis
	Prof. KANZAKI Akimitsu	Sensor network, Mobile network
	Prof. HIROTOMI Tetsuya	Well-being information technology
	Prof. FUJIWARA Toru	Information security and Error control coding
	Assoc. Prof. IWAMI Munehiro	Term rewriting system, Automated theorem proving
	Assoc. Prof. KUSAKA Takuya	The research area includes channel coding which is a base of high reliability communication and cryptography which is a base of secure communication.
	Assis. Prof. R. Mian	Computer arithmetic, VLSI design and test

### Physics and Applied Physics Course

Fundamental Physics	Prof. FUJIWARA Kenji	NMR study of physical properties in strongly correlated electron systems and search of exotic materials
	Prof. TANAKA Hiroshi	Condensed matter theory on the basis of first principles calculation, development of a new method for computational physics, and mathematical physics
	Prof. MIYOSHI Kiyotaka	Magnetic, transport and superconducting properties of strongly correlated materials and their high pressure effect
	Assoc. Prof. TSUKADA Shinya	Phase transitions and functions of ferroelectric materials probed by spectroscopic techniques, and development of new ferroelectric materials
	Assoc. Prof. NISHIGORI Shijo	Research on physical properties of strongly correlated electron systems etc., Development and application of techniques for thermal properties measurement under high pressures
	Assoc. Prof. MOCHIZUKI Shinsuke	Nonperturbative methods in quantum field theory, including lattice gauge theory, Random matrix theory and its application to quantum physics, especially level statistics and quantum chaos
	Assoc. Prof. MUTOU Tetsuya	Numerical study of exotic quantum states in strongly-correlated electron systems and quantum spin systems, and theoretical study of many-body problems based on statistical physics
	Assoc. Prof. MOTOYAMA Gaku	Material research on strongly correlated electron systems and study of magnetic and transport properties under ultra low temperature
	Assis. Prof. USUI Hidetomo	Theoretical research on anomalous quantum transport phenomena by means of effective models and first-principle calculations
	Assis. Prof. MANAGO Masahiro	Study of superconductivity, magnetism, and quantum-critical phenomena in strongly-correlated electron systems by nuclear magnetic resonance
Materials Science and Engineering	Prof. ARAKAWA Kazuto	Studies on lattice defects in extreme environmental materials, using transmission electron microscopy
	Prof. MORITO Shigekazu	Research on morphology and crystallography of materials with electron microscopies and electron diffraction analyses
	Prof. KITAMURA Toshihiro	Research on R&D management and innovation creation, especially promotion and effect of industry-university cooperation
	Prof. MIYAMOTO Mitsutaka	Research on surface modification of plasma facing materials in fusion reactor
	Assoc. Prof. KITAGAWA Hiroyuki	Research on preparation and physical properties of intermetallic compounds and ceramics materials for thermoelectric applications
	Assoc. Prof. PHAM Hoang Anh	Characterization of materials microstructure by using electron microscopy and diffraction technique. Evolution of materials microstructure during various manufacturing processes

Electronic Device Engineering	Prof. YAMADA Yasuji	Crystal growth of bulk and thin film superconductors and transparent conductors and improvement of their properties
	Prof. FUJITA Yasuhisa	Preparation of ZnO thin films and nano-particles, and their applications to the optical devices and nano-medicine
	Prof. KAGESHIMA Hiroyuki	Advanced electronic materials research on mechanisms to manifest physical properties and on theories to control functions
	Prof. YEH Wenchang	Single crystal growth of semiconductor film on glass substrate by micro laser and its application to semiconductor devices
	Assoc. Prof. YOSHIDA Toshiyuki	Carrier conduction mechanisms and transistor applications of oxide semiconductor particle layers
	Assis. Prof. FUNAKI Shuhei	Research on development of novel fabrication methods in superconductor and transparent conductors for applications

### Mechanical, Electrical and Electronic Engineering Course

Mechanical Engineering	Prof. SHINJO Junji	Thermo-fluid dynamics of engines and aerodynamics of transportation vehicles
	Prof. LI Shuting	Static and dynamic behavior (strength & life, vibration & noise, lubrication & efficiency) of various kinds of gears used in space-exploring machines, robots and aircrafts
	Assoc. Prof. HAMAGUCHI Masafumi	Research on damping transfer control using a mobile robot and a cart, damping actuator, and welfare and nursing robot
	Assoc. Prof. MORIMOTO Takuya	Mechanics and design of soft materials and flexible structures
	Assoc. Prof. Nguyen Gia Minh Thao	High-efficiency motor drive systems and hybrid renewable energy systems including electric vehicles with wide-bandgap power electronics converters and computational intelligence-based control
	Assoc. Prof. KUMAR Varun	Optical metrology, especially in digital holography, holographic microscopy, and shearing interferometry for industrial and biomedical applications
	Assoc. Prof. TAMURA Shinji	Characteristics of nonlinear dynamics and theory of vibration suppression for mechanical structures
Electrical and Electronic Engineering	Prof. MASUDA Hiroji	Future high-capacity optical communication and ubiquitous networks utilizing opto-electronics technologies
	Prof. ITO Fumihiko	Optical sensing technologies by using lasers and optical fibers, and advanced optical measurement for evaluating optical devices
	Prof. YOKOTA Masayuki	Optical Metrology focusing on interferometry including digital holography and image processing
	Assoc. Prof. SHIMOMAI Toyoshi	Remote sensing of the earth environments using electromagnetic waves
	Assis. Prof. ITO Fumihito	Communication aids and software for severely disabled people
	Assis. Prof. KITAMURA Kokoro	Future high-capacity optical communication and ubiquitous networks utilizing opto-electronics technologies
	Assis. Prof. ZHANG Chao	3D measurement and telecommunication by using lasers

## Earth Science Course

Geoscience	Prof. SAMPEI Yoshikazu	Petroleum Geology, Organic Geochemistry
	Prof. KAMEI Atsushi	Igneous Petrology, Geodynamics, Geochemistry
	Assoc. Prof. ENDO Shunsuke	Metamorphic Petrology, Structural Geology
	Assoc. Prof. OHIRA Hiroto	Resource Geology, Geochronology
	Assoc. Prof. AUER Andreas	Volcanology, Petrology, Natural Hazards
	Assis. Prof. Ammini Sasidharan SILPA	Mineralogy, Petrology, Geochemistry
Geoenvironmental Science	Prof. IRIZUKI Toshiaki	Paleontology, Stratigraphy
	Prof. SAKAI Tetsuya	Sedimentology, Stratigraphy
	Prof. HAYASHI Hiroki	Paleontology, Biostratigraphy
	Assoc. Prof. SETO Koji	Geological, sedimentological and paleontological studies on environmental change of estuary areas
	Assoc. Prof. KATSUKI Kota	Environmental and ecological system reconstruction based on distribution and characteristics of phytoplankton fossils in lake sediment
	Assoc. Prof. TSUJIMOTO Akira	Environmental assessment and paleoenvironmental analysis based on Meiobenthos (foraminifera)
Geo-disaster Science	Assoc. Prof. MASUMOTO Kiyoshi	Hydrogeology, Engineering Geology
	Assoc. Prof. KOGURE Tetsuya	Geomorphology, Engineering Geology
	Assoc. Prof. MUKOYOSHI Hideki	Structural Geology, Tectonics
	Assis. Prof. SHIBI Toshihide	Geotechnical Engineering, Continuum Mechanics
	Assis. Prof. Lakshmanan SREEHARI	Structural Geology, Tectonics

## Environmental and Sustainability Sciences Course

	Prof. UENO Makoto	Studies on the expression of resistance in plant-microbe interaction
	Prof. KIHARA Junichi	Photomorphogenesis in phytopathogenic fungi
	Prof. TAKEDA Ikuo	Water quality and hydrology in catchment area
	Prof. MASUNAGA Tsugiyuki	Enhancement and Control of soil ecosystem functions of plant production and environmental purification, Nutritional ecology in soil-water- plant ecosystems
	Prof. MIYANAGA Ryoichi	Bee biology
	Prof. YAJIMA Hiroshi	Ecological modelling and its application for the water quality improvement in lakes and reservoirs, and heavy rainfall disaster
	Prof. YANO Akira	Plant environment photonics
	Prof. YAMAGUCHI Keiko	Aquatic environment analysis with benthic organisms and its application to renovating water environment
	Prof. KUWABARA Tomoyuki	Studies on conservation and restoration of water environment, and purification of waste water and environmental water
	Prof. ISHII Masayuki	Performance based design and performance evaluation of irrigation facilities in multifunctional aspects
	Assoc. Prof. IZUMI Yohei	Physiological and biochemical study on seasonal adaptation of insect

	Assoc. Prof. KUBO Masako	Dynamics of riparian forest, Management of semi-natural grassland
	Assoc. Prof. KURATA Kengo	Ecology for Estuarine Ecosystems and Coastal Lagoon Environments
	Assoc. Prof. SATO Kuniaki	Development of technology for environmental restoration and resource recycling by soil ecological engineering
	Assoc. Prof. SUYAMA Kousuke	Evaluation of pesticide side effects on microbial ecosystem, Development of teaching materials about pesticide
	Assoc. Prof. HORINOCHI Masahiro	Ecology of fishes in nearshore habitats including seagrass beds, reed belts and mangrove areas
	Assoc. Prof. YAMASHITA Tamon	Nutrient dynamics in forest soils, Soil environment below tropical rain forest of Southeast Asia
	Assis. Prof. UENO Kazuhiro	Study on maintenance methods and disaster prevention and mitigation methods for irrigation and drainage facilities
	Assis. Prof. KAWAIDA Shun	Community structures of estuarine macrobenthos Ecological role of cellulose digesting enzymes of estuarine macrobenthos Biological production of lower trophic levels and food web structures in estuarine ecosystems
	Assis. Prof. KIM Sangyeob	Study of the reservation measures of water environment in estuary using numerical model
	Assis. Prof. SATO Hirokazu	New conceptual flood control system to the excess flood of a river basin regarded as a management unit
	Assis. Prof. SATO Mari	Maintenance of the overaged earth structures
	Assis. Prof. SHIMIZU Kaya	Ecology of arthropod community in tropical rain forest of South East Asia, Interactions among ants, the other arthropods and plants
	Assis. Prof. NAGATO Edward Gou	The formation and environmental dynamics of polycyclic aromatic hydrocarbon congeners
	Assis. Prof. NAKAMURA Yasuhide	Ecology, phylogeny and community structure of plankton (radiolarians, phaeodarians, mysids, etc.) Reconstruction of paleo-environment using DNA metabarcoding focused on plankton community
	Assis. Prof. HAYASHI Shohei	Odorous compound from bacteria in lakes and water reservoirs, Ecology and physiology of microorganisms in Antarctica, Study on microbe-microbe and microbe-plant interactions, Genetic study on pesticide-degrading ability in bacteria, Control of odorous compounds-producing cyanobacteria and actinomycetes in water ecosystems
	Assis. Prof. FUKADA Kotaro	Studies on dynamics of air in soil by acoustic measurement method
	Assis. Prof. FUJIMAKI Reiji	Biomass production and nutrient cycling in forest ecosystems
	Assis. Prof. YOSHIOKA Yumi	Water quality and hydrology for regional groundwater
	Assis. Prof. LI Zhi	Development of environment control system for agricultural cultivation facilities using photovoltaic and electrical engineering technologies

## Chemistry Course

Basic Chemistry	Prof. NISHIGAICHI Yutaka	Photochemical organic synthesis and selective organometallic reaction
	Assoc. Prof. KUBOTA Takeshi	In-situ characterization of catalyst active sites using spectroscopy
	Assoc. Prof. IKEUE Takahisa	Synthesis and characterization of porphyrinoid metal complexes with unique electronic states
	Assoc. Prof. NAKATA Kenya	Development of catalytic asymmetric reactions and synthesis of optically active compounds
	Assoc. Prof. SUZUKI Masaaki	Structural organic chemistry and functional elucidation of novel aromatic compounds
Environmental Chemistry	Prof. MIYAZAKI Hidetoshi	Fabrication and evaluation of sustainable ceramics and composites
	Assoc. Prof. KATAOKA Yusuke	Development of artificial photosynthetic system for hydrogen evolution and polynuclear complexes with unique magnetic properties
	Assoc. Prof. SUGAHARA Shogo	Study on generation and behavior of hydrogen sulfide in brackish areas
	Assis. Prof. MAKINOSE Yuki	Synthesis and evaluation of nano-size ceramics by solution process
	Assis. Prof. PARK Jayeong	Geochemical dynamics of dissolved silicate in environmental water
Functional Materials Chemistry	Prof. YOSHIHARA Hiroshi	Analysis of fracture mechanics, vibration, strength, and deformation properties of wood and wood-based materials
	Prof. YAMAGUCHI Isao	Synthesis, properties, and applications of functional polymers
	Prof. TANAKA Hidekazu	Synthesis of functional inorganic oxide particles and functional enhancement of inorganic oxide particles by surface and particle design
	Prof. SASAI Ryo	Preparation of functional materials using 2-dimensional nanospace in layered inorganic compounds and its application for environment, energy, and resource fields
	Prof. MORIMOTO Nobuyuki	Design of polymeric biomaterials for drug delivery systems
	Assoc. Prof. YOSHINOBU Masahiro	Studies on recycling of woody biomass wastes, on functional utilization of ligno-cellulosics by chemical modification, and on evaluation of properties and sheet formation of Washi (traditional Japanese paper)
	Assoc. Prof. TSUJI Takeshi	Fabrication and study of the formation mechanism of nano-sized materials using novel photo- and laser-process
	Assoc. Prof. KATOH Sadanobu	Functional utilization of untapped wood materials for the next generation sustainable agriculture
	Assoc. Prof. HASEGAWA Hiroyuki	Solid state chemistry of organic electronic materials, and nanotechnology
	Assoc. Prof. IIDA Hiroki	Development of functional organic molecules and polymers and their application to environmentally friendly chemical transformations
	Assoc. Prof. ATARASHI Daiki	Socio-physical inorganic environmental materials
	Assis. Prof. FUJIMURA Takuya	Synthesis of molecular assembly utilizing two-dimensional nanospace and development of photofunctional materials
	Assis. Prof. WANG Aohan	Development of novel polymer materials based on natural products

## Architectural Design Course

Building structure/ Environmental engineering	Prof. SAWADA Kiichiro	Seismic design, Corrosion, Structural optimization
	Assoc. Prof. SHIMIZU Takafumi	Architectural environment design, Acoustics, Environmental psychological and physiology, Signal processing
	Assis. Prof. NGUYEN Thulan	Noise control, Environmental policy
	Assis. Prof. KOMATSU Shingo	Architectural aesthetics, Theory of historical urban space, Special sensibility of children
	Assis. Prof. NGUYEN TRAN Yen Khang	Urban Environments, Wind and light environment, Visual environment, Vernacular and Passive Design, User-centered approach
Architectural Planning and design	Prof. SENDAI Shoichiro	Architectural aesthetics, Theory of historical urban space
	Prof. HOSODA Tomohisa	Architectural planning, Architectural design
	Assoc. Prof. KOBAYASHI Hisataka	Wooden construction, Renovation of old house
	Assis. Prof. MISHIMA Sachiko	Architectural planning
	Assis. Prof. INOUE Ryo	Landscape, Urban planning, Architectural and urban design

# Life Sciences Course

Biological Science	Prof. AKAMA Kazuhito	Studies on regulatory mechanism of tRNA gene expression and physiological function of $\gamma$ -aminobutyric acid (GABA) in plants
	Prof. ARANISHI Futoshi	Molecular evolutionary, ecological and conservative genetics of aquatic organisms
	Prof. KODAMA Yuuki	Elucidation of the mechanism that establishes endosymbiosis between the ciliate <i>Paramecium bursaria</i> and <i>Chlorella</i> spp.
	Prof. HIROHASHI Noritaka	Reproductive physiology of marine invertebrates
	Prof. MATSUZAKI Takashi	Control mechanisms of hair formation and hair cycle
	Assoc. Prof. ISHIDA Hideki	Cell motility mechanisms of protists
	Assoc. Prof. MOUGI Akihiko	Theoretical study on maintenance mechanism of biodiversity
	Assoc. Prof. YOSHIDA Masaaki	Evolutionary genomics targeting non-model organisms in oceans
	Assoc. Prof. TAKAHARA Teruhiko	Behavioral ecology and bio-monitoring using environmental DNA in aquatic animals
	Assis. Prof. AKIHIRO Takashi	Isolation and characterization of the novel membrane transport protein from the plant
	Assis. Prof. ONO Hiroki	Comparative developmental biology in marine invertebrates
	Assis. Prof. SUGAI Kyoko	Ecological genetics of woody plants on islands
	Assis. Prof. YAMAGUCHI Yoko	Comparative physiology and endocrinology of body fluid regulation in vertebrates
Biotechnology	Prof. ISHIKAWA Takahiro	Physiology and metabolism of ascorbic acid in plants and microalgae
	Prof. SHIOTSUKI Takahiro	Chemical biology and molecular mechanisms in regulation of insect development and their application
	Prof. SHIMIZU Hidetoshi	Study on the relationship between food-derived intestinal bacterial metabolites or cyanobacteria-derived toxins, and pathogenesis of diseases
	Prof. NAKAGAWA Tsuyoshi	Functional analysis of genes responsible for growth and development of plants
	Prof. MARUTA Takanori	Redox control and stress response in plants
	Prof. MUROTA Kaeko	Elucidation of the bioavailability of lipophilic functional food factors
	Prof. YAMAMOTO Tatsuyuki	Biomedical applications of Raman spectroscopy
	Assoc. Prof. IKEDA Izumi	Design and synthesis of bioactive molecules
	Assoc. Prof. OGAWA Takahisa	Metabolism and regulatory mechanism of cofactors in plants
	Assoc. Prof. KAINO Tomohiro	Elucidation of biosynthesis, regulatory mechanism and function of coenzyme Q (ubiquinone)
	Assoc. Prof. JISAKA Mitsuo	Structure and function of enzymes involved in lipid peroxidation and following reactions
	Assoc. Prof. NISHIMURA Kohji	Membrane trafficking machinery of proteins in plant cells
	Assoc. Prof. YOSHIKIYO Keisuke	Molecular recognition engineering using cyclodextrins
	Assoc. Prof. MATSUO Yasuhiro	Cell signaling in fission yeast
	Assis. Prof. ISHIGAKI Mika	Nondestructive analysis of bio-molecular structure and its function using molecular spectroscopies
	Assis. Prof. HACHIYA Takushi	Mechanism of nitrogen sensing and responses in plants
	Assis. Prof. H. Noothalapati	Bioanalytical Chemistry with Raman spectroscopy

## Agricultural and Forest Sciences Course

Crop and Livestock Production	Prof. ICHINOHE Toshiyoshi	Feeding regimen of ruminant animal
	Prof. MATSUMOTO Shingo	Analysis of available nutrients and toxic heavy metals in soil
	Assoc. Prof. UJIE Kazuhiro	Crop physiology, Development of cultivation techniques
	Assoc. Prof. KADOWAKI Masayuki	Photosynthesis, Dry matter production
	Assoc. Prof. KOBAYASI Kazuhiro	Functional morphology and abiotic stress in crop science
	Assis. Prof. ADACHI Fumihiko	Relationship between growing condition and crop production
	Assis. Prof. SHIRO Sokichi	Utilization of useful microbes in crop production
	Assis. Prof. SONG Sanghoun	Physiological control of tissue development in animal body
Horticulture and Plant Science	Prof. KOBAYASHI Nobuo	Evaluation of plant genetic resources and its application
	Prof. MATSUMOTO Toshikazu	Fruit cultivation, Postharvest
	Prof. ESUMI Tomoya	Reproductive physiology in fruit and ornamental trees
	Assoc. Prof. IKEURA Hiromi	Analysis of the scent of vegetables, fruits and flowers
	Assoc. Prof. TANAKA Hideyuki	Effective propagation in horticultural plants
	Assoc. Prof. NAKATSUKA Akira	Analysis of useful character gene in horticultural plants
Agricultural Economics	Assoc. Prof. MORI Yoshiko	Financial activity of agriculture management entities and agricultural financing in the rural economy
	Assoc. Prof. YASUNAGA Nobuyoshi	Quantitative and qualitative analysis on rural community management
	Assis. Prof. NAKAMA Yukiko	Historical analysis of agricultural policies
	Assis. Prof. SELEKY Rosalia Natalia	Agribiobusiness, Analysis of farm succession
Forestry	Prof. YOSHIMURA Tetsuhiko	Forest engineering
	Assoc. Prof. TAKAHASHI Erina	Forest resources management
	Assoc. Prof. YONE Yasumichi	Forest remote sensing

## A Profile of Shimane University

Shimane University was founded in 1949 as a national university with two faculties: the Faculty of Literature and Science which was made up of Matsue Higher School (originally founded in 1920), and the Faculty of Education which was made up of Shimane General School (originally founded in 1875), Shimane General School for Youth (originally founded in 1933).

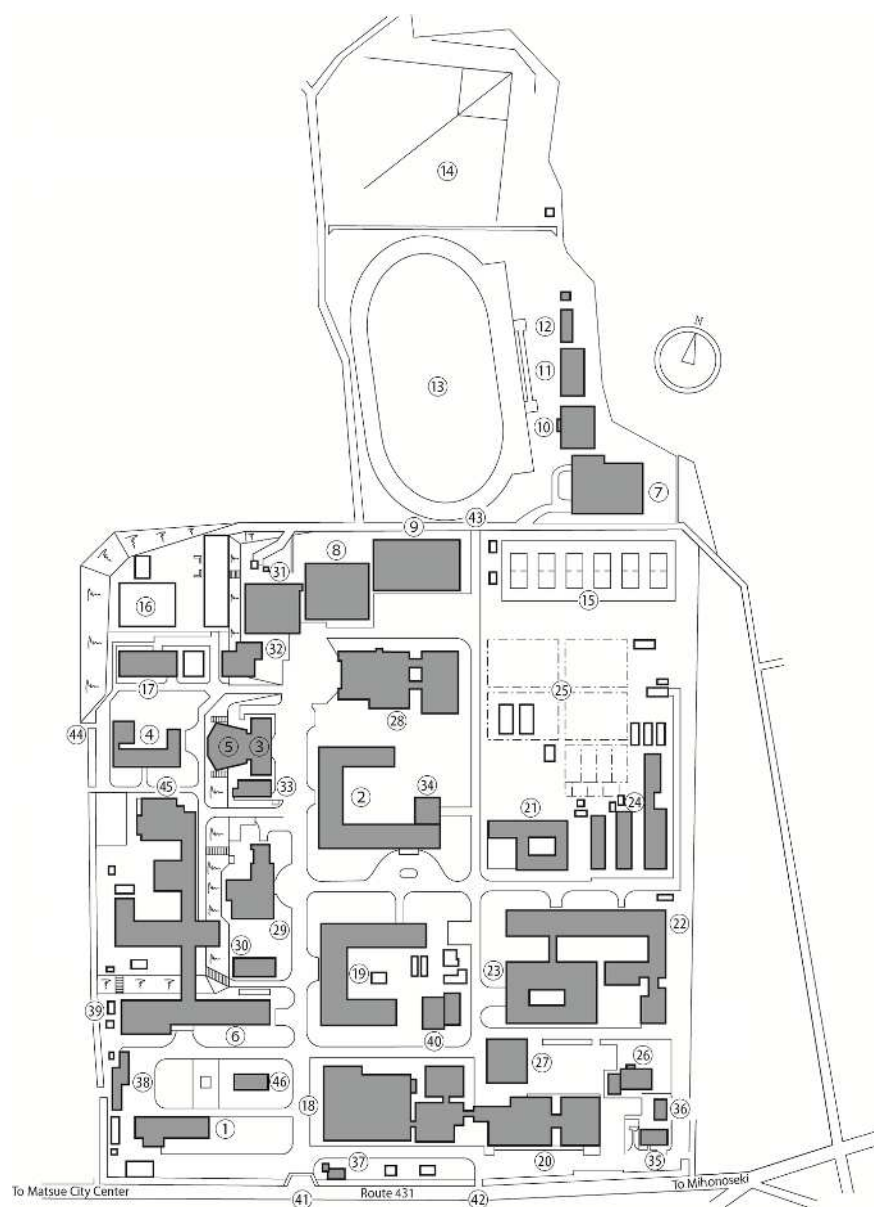
Shimane and Shimane Medical Universities amalgamated on October 1, 2003. The new Shimane University has two main campuses, and consists of seven faculties. Law and Literature, Education, Human Sciences, Materials for Energy, Life and Environmental Sciences, and the Interdisciplinary Faculty of Science and Engineering are housed at the Matsue campus, and the Faculty of Medicine is based at the Izumo campus. The combined Shimane University now has more than 2000 staff and 6050 students, including 178 international students as of April 1, 2023.

Shimane University now has four graduate schools (Humanities and Social Science, Education, Medical Research, and Natural Science and Technology), and three doctorate graduate schools (Medical Research, Natural Science and Technology, and the United Graduate School of Agricultural Science). In addition, the university also operates several other research centers, facilities and hospitals.

In addition to undergraduate, graduate, and postgraduate students, there are several other categories of students comprising auditors, special auditors, and research students.

Since its establishment, Shimane University has endeavored to cultivate persons of ability who will contribute to the development of society. With this in mind and its historical background, the university aspires to be an international university open to the South - East Asia and Pacific Rim regions. Shimane University has Academic Exchange Agreements with 103 institutes in 27 countries/regions as of July 14, 2023.

SHIMANE UNIVERSITY  
MATSUE CAMPUS



- 1 Administration Building
- 2 Faculty of Law and Literature Building
- 3 General Education Building I
- 4 General Education Building II
- 5 University Hall
- 6 Laboratories of the Faculty of Education
- 7 Gymnasium I
- 8 University Union
- 9 Gymnasium II
- 10 Training Center
- 11 Martial Arts Center
- 12 Athletic Equipment Warehouse
- 13 Athletic Field
- 14 Ball Park
- 15 Tennis Courts
- 16 Swimming Pool & Dressing Rooms
- 17 Extracurricular Activity Center
- 18 Interdisciplinary Faculty of Science and Engineering Building I
- 19 Interdisciplinary Faculty of Science and Engineering Building II
- 20 Interdisciplinary Faculty of Science and Engineering Building III
- 21 Faculty of Life and Environmental Sciences Building I
- 22 Faculty of Life and Environmental Sciences Building II
- 23 Faculty of Life and Environmental Sciences Building III
- 24 Labs and Facilities (Faculty of Life and Environmental Sciences)
- 25 Farm
- 26 General Information Processing Center
- 27 Department of Molecular and Functional Genomics in Interdisciplinary Center for Science Research
- 28 Main Library
- 29 Student Center
- 30 Student Support Center
- 31 Cafeteria I "Sogno"
- 32 Cafeteria II "Nicora"
- 33 Health Service Center
- 34 Estuary Research Center
- 35 Waste Fluid Treatment Building
- 36 Organic Waste Fluid Burning Treatment Building
- 37 Guard Post
- 38 Garage
- 39 Handicraft and Engineering Work Center
- 40 Next Generation Tatara Co-Creation Center
- 41 Main Gate
- 42 East Gate
- 43 North Gate
- 44 West Gate
- 45 Faculty of Human Sciences Building
- 46 Community Exchange Meeting House

## BRIEF INTRODUCTION TO MATSUE CITY

Matsue City, with a population of about 200,000, lies some 800 kilometers to the west of Tokyo, from where it can be reached in one and a half hours by plane, or six and a half hours by train. Located in the eastern part of Shimane Prefecture, the city is the seat of the prefectural government, and is the political, economic and cultural center of the region.

It is a beautiful city, well-known from ancient times as the “town of water”, with the large lakes of “Nakaumi” and “Shinjiko” on the eastern and the western borders of the city respectively. This region, which is traditionally called the “Province of Izumo,” was one of the most prosperous cultural centers in ancient Japan, with local government established in Matsue as far back as the sixth century. A considerable number of the old town's relics are still found in and around the city. Since Matsue Castle was built in 1611, Matsue has enjoyed prosperity as a castle town and developed as the political, economic and cultural center of the province. Even today, original structures, such as Matsue Castle, the Samurai House, and the waterways running through the city, are still in original condition.

Lafcadio Hearn (1850-1904), an Irish journalist and writer, was sent to Matsue by Harper's in 1890. He was so enchanted by this old castle town during his 15 month stay that he married into an old samurai family. In 1896 he was naturalized as a Japanese citizen and took the Japanese name “Koizumi Yakumo”. Famous among his writings are *Glimpses of Unfamiliar Japan*, *Kwaidan*, and *Japan: An Attempt at Interpretation*. Matsue City keeps his old residence as it used to be, and next to it stands the Lafcadio Hearn Memorial Museum which was rebuilt in 1984 in Japanese style. Even today citizens of Matsue still have a strong attachment to Lafcadio Hearn.

In 1951, Matsue was designated an “International Cultural and Sightseeing City”, one of three such cities in Japan, together with Kyoto and Nara. Matsue, known as an international town which has maintained its time-honored traditions, attracts a great many tourists from abroad as well as from various parts of Japan. In recent years the city has seen rapid urbanization, and the streets, still rich in the atmosphere characteristic of a castle town, are changing their appearance. Urbanization represents a new start for the central city of the San-in district and promises a bright future.

The climate of the Matsue area is rather mild throughout the year, with an average yearly temperature around 14°C. In the summer the temperature averages around 26°C, with some very hot days over 30°C in the middle or latter part of the season. In the winter the temperature, on the average, is somewhere around 4°C. During the winter the weather tends to be rainy with strong north-westerly winds, but only light snowfalls.

英語による留学生プログラム  
島根大学大学院自然科学研究科博士前期課程  
私費外国人留学生学生募集要項（2024 年度）

**不測の事態等が発生した場合の対応について**

大規模災害等の不測の事態により、学生募集要項等で公表した入学者選抜試験の方法による実施が困難な場合、又は交通機関の混乱等により受験者に相当程度の影響が及ぶと判断した場合は、試験日時、選抜方法及び合格発表日の変更等の対応をとることがあります。その場合、対応を以下のホームページでお知らせしますので、出願及び受験の直前には特に注意してください。

島根大学入試情報ホームページ <https://www.shimane-u.ac.jp/nyushi/>

島根大学大学院自然科学研究科博士前期課程においては、自然科学に関する研究を行う私費外国人留学生を下記により募集する。

**1. アドミッション・ポリシー（入学者受入方針）**

島根大学大学院は、次のような人を求めます。

- 学士課程（博士後期課程にあつては博士前期課程）相当の各専攻分野を中心とする専門的知識・技能を身につけている人
- 学術研究や学問的探究に対する強い意欲と明確な目的意識を持ち、新しい時代を切り開く研究を目指して絶えず研鑽し、議論を通じて他者との相互理解を深めようとする人
- 国内外の諸問題に関心をもち、多様な人々との協働を通して課題を解決に導く意欲をもつ人
- 社会人経験等により培われた専門的知識・技能を高度化、深化させたい人
- 地域社会や国内・国際社会の様々な場面で、高度専門職業人として、産業界や行政機関、教育・研究・医療機関の諸活動において、リーダーシップを発揮し活躍したい人

自然科学研究科博士前期課程では、科学・技術の発展と持続可能な社会の実現に俯瞰的・総合的視点から寄与できる創造性豊かな高度技術者・研究者及びグローバルな視野を持って地域社会の発展に貢献できる人材を育成します。その教育では、理学、工学、あるいは生物資源科学の高度な専門知識と技術、社会において新たな科学・技術を創成する能力、そして平等な社会の構築に向けた持続可能な技術開発力を養成します。これらを踏まえて理工学専攻、環境システム科学専攻、あるいは農生命科学専攻の各教育コースでは、次の方針により入学者を選抜します。

◆入学者選抜の基本方針（評価方法とその扱い方、特に学士課程では学習成果（学力の3要素）をどう求めるのか）

理工学専攻、環境システム科学専攻、あるいは農生命科学専攻の各教育コースでは入学者受入方針に適合する多様な人材を選抜するため、複数の形態による入学試験を実施します。推薦入試では学士課程における成績等により学生の学力や表現力、研究への意欲や適性、将来展望などについて総合的に判断します。一般入試では口頭試問および面接により専門分野の基礎知識、研究能力や意欲を問い、さらに成績証明書の記載内容などについて総合的に判断します。社会人入試、外国人留学生入試、及び学部・博士前期一貫プログラム入試では学士課程における成績等に加えて、それぞれの選抜で必要な口頭試問、面接、英語試験（外部試験）、もしくは小論文などを課し、これらを総合して判断します。

## 2. 設置目的

本プログラムは、「先端材料工学，数理科学，知能情報デザイン学，物理・応用物理学，機械・電気電子工学，地球科学，環境共生科学，物質化学，建築デザイン学，生命科学，農林生産学」を基軸にした自然科学に関する基礎的並びに応用的な教育と研究を行うことによって，理工学，環境システム科学及び農生命科学に関する諸問題に取り組むことができる高度で専門的な知識を有し，しかも指導的役割を担うことのできる人材の養成を図る。

## 3. 教育方法

本プログラムは，2年間の博士前期課程で，英語による留学生プログラムに定める教育課程において30単位以上修得し，学位論文を提出し，その審査及び最終試験に合格すれば，修士（理学，工学又は生物資源科学）の何れかの学位を授与する。

本プログラムにおいては開設する授業科目及び研究指導をすべて英語で行う。

## 4. 専攻分野

専攻分野の決定に当たっては，下記の理工学，環境システム科学及び農生命科学の各コースを念頭において選択すること。

### 理工学専攻

先端材料工学  
数理科学  
知能情報デザイン学  
物理・応用物理学  
機械・電気電子工学

### 環境システム科学専攻

地球科学  
環境共生科学  
物質化学  
建築デザイン学

### 農生命科学専攻

生命科学  
農林生産学

## 5. 募集人員

若干名

## 5. 出願資格及び条件

### (1) 国籍

日本政府が承認している国で，新たに留学する者及び日本国内に在住している者

### (2) 年齢

学歴等の資格及び条件を満たせば，制限はしない。

### (3) 学歴

- ①外国において学校教育における 16 年の課程を修了した者及び修了見込みの者
- ②外国の大学その他の外国の学校（その教育研究活動等の総合的な状況について、当該外国の政府又は関係機関の認証を受けた者による評価を受けたもの又はこれに準ずるものとして文部科学大臣が別に指定するものに限る。）において、修業年限が 3 年以上である課程を修了すること（当該外国の学校が行う通信教育における授業科目を我が国において履修することにより当該課程を修了すること及び当該外国の学校教育制度において位置付けられた教育施設であって前号の指定を受けたものにおいて課程を修了することを含む。）により、学士の学位に相当する学位を授与された者及び 2023 年 9 月 30 日までに授与される見込みの者
- ③本研究科において、個別の入学資格審査により、大学を卒業した者と同等以上の学力があると認められた者で、22 歳に達したもの及び 2024 年 3 月 31 日までに達するもの
- （注）出願資格の（3）-③により出願を希望する者については、2023 年 10 月 23 日（月）までに学務課 自然科学研究科入試担当に照会すること。

### (4) 健康

心身ともに健康で大学における学業に支障がない者

### (5) 語学能力

十分な英語力を有する者

### (6) 在留資格

在留資格「留学」を有する者、又は入学時に「留学」を取得出来る見込みの者

## 7. 出願手続

### (1) 出願書類

志願者は、次の出願書類等を提出すること。

① 私費外国人留学生入学申請書	・ 本学所定の用紙を使用すること。 ・ 志願者は、入学申請書に希望する指導教員名を記入しなければならない。なお、指導教員名の記入のない場合は、審査することができないので特に注意すること。 ・ 志願者は、出願の約 1 ヶ月前までに島根大学の指導予定教員に連絡し、相談すること。志願者と指導予定教員は、志願者のこれまでの研究活動実績を踏まえ、出願までに研究計画について合意しておくこと。
② 健康診断書	公立病院で最近 6 ヶ月以内に受診したもので所定の様式による。
③ 卒業証明書等	最終出身大学（学部及び大学院）の卒業証明書又は学位記（写）、卒業見込証明書等
④ 成績証明書	最終出身大学（学部及び大学院）の成績証明書（出身大学で発行したもの、英語以外のものは英文訳を添付すること。）
⑤ 英語能力証明書	TOEFL, TOEIC 等の成績表（写）
⑥ 学士論文等	i 卒業者は学士（卒業）論文の写し及び要旨、ただし論文がない場合はこれに替わるもの ii 卒業見込みの者は、研究経過報告書 iii 大学院修了者は、修士論文の写し及び要旨、ただし論文がない場合はこれに替わるもの

	iv 大学院修了見込みの者は、研究経過報告書
⑦ 既発表論文等	既発表論文の別刷、投稿中論文の写し及び口頭発表要旨の写し
⑧ 戸籍謄本等	本国の戸籍謄本、市民籍等の証明書又はパスポートの写し
⑨ 推薦書	申請者と個人的交流があり、さらに申請者の教育研究に対して保証できる指導教授又はそれに準ずる責任ある教員等からの推薦書とする。
⑩ 写真	<p>最近 6 ヶ月以内に撮影した上半身、正面、脱帽、サイズ 4.5×3.5 cm のもの 2 枚（裏面に国籍及び氏名を記入したもの）</p> <ul style="list-style-type: none"> <li>・ 1 枚は入学申請書の所定の場所に貼付すること。</li> <li>・ 1 枚は出願書類に同封すること。</li> </ul>
⑪ 入学検定料振込金 証明書	<p><b>① 【日本国内で振り込む場合】</b></p> <p>2024 年度島根大学「入学検定料」振込依頼書等用紙を島根大学ホームページからダウンロードし、所定欄に必要事項を記入し、銀行・信用金庫・農協等の金融機関（ゆうちょ銀行・郵便局を利用される場合は、「通帳及び印鑑」が必要です。現金による振込はできません。）で、取扱期間中（2023 年 11 月 13 日（月）～2023 年 11 月 24 日（金））の窓口取扱時間内（15 時 00 分まで）に同用紙により<b>入学検定料 30,000 円</b>を振り込んでください。〔ATM（現金自動預払機）は使用しないでください。〕振込手続後、窓口で返却された「Ⅲ票 振込金証明書（島根大学提出用）」を同封してください。</p> <p>（注意） 代理人（日本国内に在住する者）が入学検定料振込手続を行う場合、「入学検定料」振込依頼書等用紙に記載する氏名は、必ず志願者本人としてください。</p> <hr/> <p><b>② 【日本国外から送金する場合】</b></p> <p>振込方法を通知しますので、件名を「英語による留学生プログラム入学検定料の納入について」とし、氏名及び日本国内から入学検定料の振込ができない旨を明記して、下記「問合せ先」にご連絡ください。</p> <p><b>問合せ先：島根大学学務課 自然科学研究科入試担当</b> E-mail : ns-nyushi@office.shimane-u.ac.jp</p> <p><b>入学検定料 30,000 円を振込後、「外国送金依頼書」をスキャン（写真でも可）して「問合せ先」のメールアドレスへ送信してください。また、「外国送金依頼書」の写しを入学検定料振込金証明書として同封してください。なお、原本は大切に保管してください。</b></p> <p>（注意）<u>入学検定料が不足する場合や出願期間最終日の午後 5 時（日本時間）までに指定口座に到着しない場合は、指定口座への入金を認めず、出願を受理しません。</u>送金には時間がかかりますので、予め送金に要する日数等を利用銀行に確認のうえ、早めに手続を</p>

	<p>行ってください。</p> <p>また、入学検定料が過入金となった場合は、過入金部分については返還しますが、返還に要する手数料は志願者負担となります。返還に要する手数料が返還額を上回る場合は返還しません。</p> <hr/> <p><b>【入学検定料の返還について】</b></p> <p>次の場合を除き、納入された入学検定料は、いかなる理由があっても返還することができません。</p> <p>①出願書類等を提出したが、受理されなかった場合  該当者に連絡しますので、所定の期日までに手続きを行ってください。</p> <p>②入学検定料を振り込み後、島根大学に出願しなかった場合</p> <p>⑫ 入学検定料を誤って二重に振り込んだ場合</p> <p>上記②及び③については、本人の申し出により納入された入学検定料を返還することができますので、2023年12月4日（月）まで（土曜日、日曜日、祝日を除く午前9時から午後5時までの間）に、件名を「英語による留学生プログラム入学検定料の返還について」とし、整理番号、氏名、入金日を明記のうえ、下記「問合せ先」へ連絡してください。</p> <p><b>問合せ先：島根大学財務部経理・調達課出納担当</b>  <b>E-mail：apd-suito@office.shimane-u.ac.jp</b></p> <p>（注意）</p> <p>返還の手続きを行う際に「Ⅱ票 振込金受取書（志願者保管）」及び「Ⅲ票 振込金証明書（島根大学提出用）」（日本国外から送金する場合は「外国送金依頼書」）が必要となりますので、大切に保管しておいてください。これらの書類がないと振込事実の確認ができず、返還ができないことがあります。</p> <p>また、返還に要する手数料は志願者負担となります。なお、返還に要する手数料が、返還額を上回る場合は返還しません。</p>
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（注1）これらの出願書類は、日本語又は英語のいずれかにより英文タイプ又はワープロを用いてA4サイズに統一して作成すること。（その他の言語により作成する場合は、日本語による訳文を添付すること。）

（注2）上記の入学願書が、すべて完全かつ正確に記載されていない場合、又は付属書類が不備であったり、提出期日（大学必着）が過ぎたものについては受理しない。

（注3）提出された書類は返却しない。

## (2) 出願期間

2023年11月20日（月）から11月24日（金）までの平日午前9時から午後5時までとする。志願者は、(1)の出願書類等を取り揃えて、「簡易書留・速達」郵便により提出すること。

出願期間内に必着とするが、期限後に到着した場合は、11月23日（木）までの消印のあるものだけに限り受理する。

(3) 出願書類提出先

〒690-8504 島根県松江市西川津町 1060

島根大学学務課 自然科学研究科入試担当（学生センター）

E-mail : ns-nyushi@office.shimane-u.ac.jp

## 8. 入試方法

(1) 面接等

実 施 方 法	実 施 期 日
インターネット・インタビュー	2023 年 12 月 11 日（月）～ 2023 年 12 月 19 日（火）

(2) 選考

面接等と提出された書類に基づき総合的に選考する。総合点が基準点（6 割）を満たした場合に、上位から合格とします。同点の場合 は、同順位とします。

＊試験中は部屋に受験者のみの環境で試験を受けてください。また施錠や貼紙等で他の人が部屋に入っていないようにして、静かな環境を作り、試験を受けてください。

＊試験を受けるまでにインターネットの通信等で問題が発生した場合、直ちに指導予定教員に知らせてください。試験開始予定の時間が過ぎても受験者からの応答がなく、また連絡もない場合は、試験を欠席したものとみなす場合があります。

## 9. 合格者の発表

(1) 次の日時に本人宛に合格通知書及び入学手続きに必要な書類を送付する。

なお、電話・メール等の照会には応じない。

合格発表日：2024 年 1 月 12 日（金） 午前 11 時

※情報提供の一環として、合格発表時刻以降に合格者の受験番号をホームページに掲載する。

U R L <https://www.shimane-u.ac.jp/nyushi/>

(2) 学費：入学料 282,000 円、授業料（年額）535,800 円

在学中に授業料の改定が行われた場合には、新授業料を適用する。

選考のうえ、授業料の全額又は半額を免除する制度がある。（全ての申請者に免除が適用されるわけではない）

## 10. 入学の時期

2024 年 4 月

## 11. 注意事項

出願書類は、書留郵便にて送付すること。

留学生への講義、研究指導は英語で行われるが、渡日に先立ち、日本の風土、習慣、気候、大学の状況等についてあらかじめ知識を得ておくこと。

また、研究以外の日常生活は日本語での生活となることについて十分理解しておくこと。

## 12. 問合せ先

島根大学 松江地区学部等事務部 学務課 自然科学研究科入試担当（学生センター）

FAX : +81-852-32-6059

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