

# Graduate School of Science and Technology Doctoral Program

April 2024 Admission  
(Second Recruitment)

## Application Guidelines

(General/Adult/International Student Entrance Exam)

Application Period	From Monday, February 5, 2024 to Thursday, February 8, 2024
Examination Date	From Friday, March 1, 2024 to Tuesday, March 5, 2024
Announcement of Successful Applicants	Monday, March 18, 2024

\*All dates and times described in this application guidelines are based on Japan Standard Time.



## Contents

Gunma University Graduate School Admission Policy	1
1 Number of admissions	2
2 Application requirements	2
3 Assessment of eligibility for application	3
4 Application procedures	4
5 Prior consultation for applicants with disabilities	8
6 Screening process	9
7 Examination schedule and location	9
8 Announcement of successful applicants	9
9 Admission procedures	9
10 Academic year	11
11 Special education methods	11
12 Note for international student applicants	11
13 Protection of applicants' personal information	12
○Program for cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology	13
○Special program "Education Program on Intelligence and Control for Developing Human Resources of Japanese Companies"	14
○Double Doctoral Degree Programme with Deakin University, Australia (Civil and Environmental Engineering)	15
○How to make a Payment of Examination Fee at Convenience Store or by Credit Card	16
○Gunma University Graduate School of Science and Technology (Doctoral Program) Faculty Members and Field of Specialization	17
○Examination location information	21

### 【Inquiries】

#### ■ Entrance examination and admission procedures

Admissions and Graduate School Section

Telephone: 0277-30-1037/1039

E-mail: [kk-kogaku6@ml.gunma-u.ac.jp](mailto:kk-kogaku6@ml.gunma-u.ac.jp)

#### ■ Admission fee/ tuition fee exemption and scholarships

Student Support Section

Telephone: 0277-30-1042/ 1047/ 1024

Email: [t-gakuseisien@ml.gunma-u.ac.jp](mailto:t-gakuseisien@ml.gunma-u.ac.jp)

#### ■ Visa and housing for international students

Student Support Section

Telephone: 0277-30-1023/ 1024

Email: [t-gakuseisien@ml.gunma-u.ac.jp](mailto:t-gakuseisien@ml.gunma-u.ac.jp)

# **Gunma University Graduate School Admission Policy**

## **We seek the following applicants**

We seek applicants who have academic skills and capabilities required by the graduate schools or institutes according to their programs or specialties. Applicants should be motivated to contribute to the development of society through research and practice.

## 1 Number of admissions

Subject	Domain	Number of Admissions
Science and Technology	Materials and Bioscience	About 25 seats
	Mechanical Science and Technology (including special programs – see Note 1)	
	Environmental Engineering Science (including Double Doctoral Degree Program in Civil and Environmental Engineering – see Note 2)	
	Electronics and Informatics, Mathematics and Physics	

\*The number of admissions includes a few adult entrants, partner graduate school entrants, and international student entrants in each domain.

\*Applicants who want to take the Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology (Heavy Ion Medical Engineering Course) must submit Form 8 in consultation with their academic advisor. See page 13 for more information on this program.

Note 1) In the 2022 academic year, we established the special program “Education Program on Intelligence and Control for Developing Human Resources in Japanese Companies” and started accepting applicants in the Mechanical Science and Technology Education Program (Master’s Program) and the Domain of Mechanical Science and Technology (Doctoral Program). This program accepts Japanese students as well as international students. See page 14 for more information.

Note 2) In academic year 2024-2025, we will be establishing a double doctoral degree program in collaboration with Deakin University, Australia. See page 15 for more information.

### Purpose of the Adult Entrance Exam

The objective of the Doctoral Program is to develop doctoral students with the research capabilities necessary for engagement in creative and practical research and development as leaders of technical innovators. Furthermore, it aims to develop students who possess the capacity and fundamental knowledge to adapt flexibly to a wide range of research fields. On the basis of this purpose, the Adult Entrance Exam has been introduced for applicants who have achieved highly evaluated results in their current posts at various research facilities, education institutions, or businesses and who possess suitable academic ability and expertise for doctoral study, with the aim of continuing advanced academic training and acquiring a doctoral degree.

## 2 Application requirements

### <General Entrance Exam>

Applicants must fulfill the following requirements:

- (1) Having acquired a Japanese master’s (*shuushi*) or professional (*senmonshoku*) degree or expecting to do so by the end of March 2024
- (2) Having been awarded a degree in a foreign country that is equivalent to a master’s or professional degree or expecting to receive one by the end of March 2024
- (3) Having completed a course and having acquired a degree equivalent to a master’s or professional degree at an educational facility in Japan that is recognized as offering a graduate course in a foreign country under the school education system of that foreign country and that is separately designated by the Minister of Education, Culture, Sports, Science and Technology or expecting to do so by the end of March 2024
- (4) Having been awarded, while in Japan, a degree equivalent to a master’s or professional degree by taking a correspondence course of study offered by a school in a foreign country or expecting to receive one by the end of March 2024
- (5) Having completed a course at the United Nations University and having been awarded a degree equivalent to a master’s degree
- (6) Having taken a course at a school in a foreign country, an education facility as specified in (3) above, or the United Nations University, having successfully passed a Ph.D. candidacy examination or the equivalent, and

being recognized as having academic ability equal to or greater than that of a person with a master's degree  
 (7) Having been designated by the Minister of Education, Culture, Sports, Science and Technology (Public Notice of the Ministry of Education No. 118, 1989) as follows:

- ① A person who has graduated from university and has been engaged in research for two years or more at a university, research institution, etc. and who is recognized by this Graduate School as having academic ability equal to or greater than that of a person with a master's or professional degree based on the results of the said research or other reason
  - ② A person who has completed 16 years of school education in a foreign country or who has completed 16 years of education by distance learning as provided by a school in a foreign country, and has been engaged in research for two years or more at a university, research institution, etc. after that, and who is recognized by this Graduate School as having academic ability equal to or greater than that of a person with a master's or professional degree based on the results of the said research or other reason
- (8) Having attained the age of 24 years by the end of March 2024 and being recognized as having academic ability equal to or greater than that of a person who has acquired a master's or professional degree through an individual entrance qualifications assessment by this Graduate School

**<Adult Entrance Exam>**

To be eligible to take this exam, the applicant must be, as of April 2024, a technician or researcher employed at a research facility, educational institution, private company, etc. who will keep that status after entrance and who fulfills one of the application requirements (1) to (8) above.

**<International Student Entrance Exam>**

To be eligible to take this exam, the applicant may not be a Japanese national and must have residence status (or be expected to have residence status) pursuant to the Japanese Immigration Control and Refugee Recognition Act such that there is no obstacle to university entry. Furthermore, the applicant must not have permission for permanent residence in Japan and must fulfill one of the application requirements (1) to (8) above.

**3 Assessment of eligibility for application**

Applicants who intend to apply under application requirement (7) or (8) above must undergo an entrance qualifications assessment and obtain approval to applying. Applicants wishing to undergo this assessment should submit the documents shown below to the Admissions and Graduate School Section by Monday, January 22, 2024 (documents received after this date will not be accepted). Applicants will be notified individually of the results of the entrance qualifications assessment by Monday, February 5, 2024.

Documents to be submitted		General	Adult	International student
①	Entrance qualifications assessment application form (Assessment 1)	○	○	
②	Entrance qualifications assessment application form for international students (Assessment 2)			○
③	Statement of purpose (Assessment 3)	○	○	○
④	CV (Form 2)			○
⑤	Graduation certificate	○	○	○
⑥	Academic transcript	○	○	○
⑦	Research results list (Form 5)*	○*	○*	○*
⑧	Certificate of research activities (Assessment 4)*	○*	○*	○*

⑨	Summary of past research (around 2,000 characters in Japanese or around 500 words if written in English)	○	○	○
⑩	Copy of academic papers (for those who have published academic papers)*	○*	○*	○*

\*Documents indicated by an asterisk (\*) to be submitted only if applicable.

Address for the submission of the above application documents:

Admissions and Graduate School Section,  
School of Science and Technology, Gunma University  
1-5-1 Tenjin-cho, Kiryu-shi, Gunma 376-8515

## 4 Application procedures

### (1) Application period and entrance examination fee payment period

Item	Period
Period for online registration and payment of entrance examination fee	From 8:30 a.m., Monday, January 29, 2024 to 5:00 p.m., Thursday, February 8, 2024 (registration/payment must be completed by this deadline)
Application period (period in which application documents are accepted)	From Monday, February 5, 2024 to Thursday, February 8, 2024 (application documents must be received by this deadline)

#### Important notes

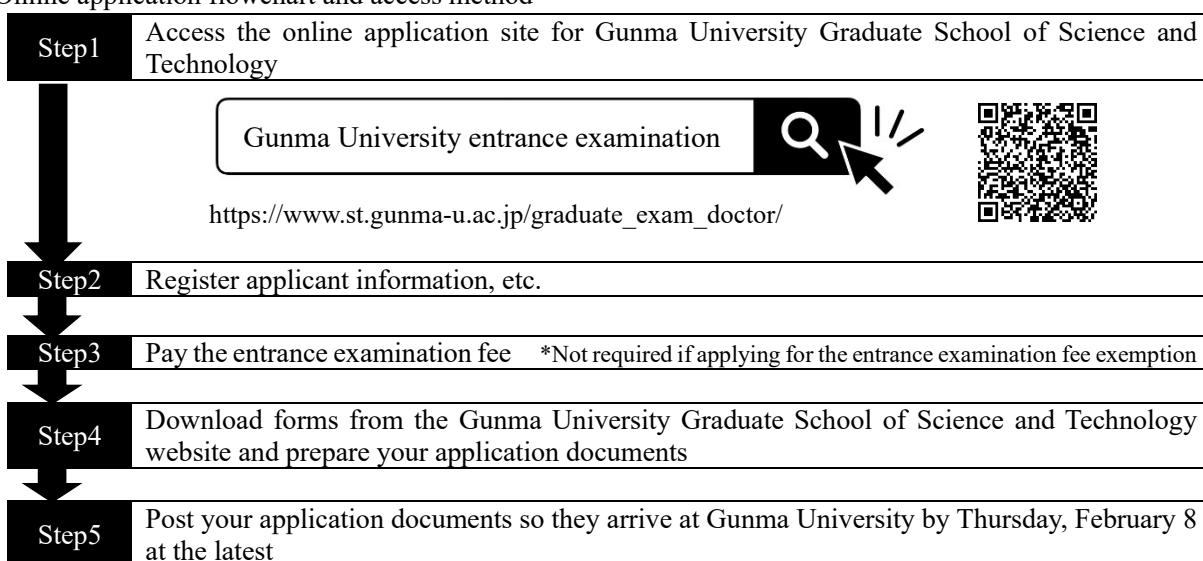
Be sure to send application documents by simple registered express post. The University shall not be responsible for any mishaps if documents are sent by any other method.

When sending application documents, give full consideration to the time required for delivery, so they arrive at Gunma University by Thursday, February 8, 2024 at the absolute latest.

In the event of special circumstances, contact the University as shown below by 5:15 p.m. on Friday, January 26, 2024.

Admissions and Graduate School Section, School of Science and Technology, Gunma University  
Telephone: 0277-30-1039 / 1037

### (2) Online application flowchart and access method



(3) Payment of entrance examination fee

Entrance examination fee: 30,000 yen

**\*Payment of the examination fee is not required from applicants continuing on to the Doctoral Program following expected completion of a Master's Program at the Graduate School of Science and Technology at Gunma University.**

**\*International students who are funded by the Japanese Government Scholarship at the time of application are exempted from payment of the examination fee. In this case, a document must be submitted to prove this status.**

Refer to “How to make a payment of examination fee at convenience store or by credit card” on page 16, and use one of the methods shown below to make your payment. Note that the payee is responsible for any payment processing charges.

**a) Paying at a convenience store in Japan**

After making payment, detach the “Certificate of Payment” (収納証明書) on the “entrance examination fee / screening fee handling document” (入学検定料・選考料取扱明細書) issued at the payment counter, and attach them to the designated section on Form 3

**b) Paying by credit card**

After making payment, print out the “entrance examination fee / screening fee handling document” (入学検定料・選考料取扱明細書), detach the “Certificate of Payment” (収納証明書) portion of the document, and attach it to the designated section on Form 3.

(4) Refunding the entrance examination fee

As a general rule, entrance examination fees cannot be refunded.

However, if the applicant does not apply to Gunma University after submitting the examination fee, or if the application is not accepted due to a problem with the documents, or in cases in which an amount greater than the specified amount is transferred due to a duplicate payment or for other reasons, a refund will be made pursuant to the following procedures. Any payment processing charges will be deducted from the amount refunded.

To request a refund, use your own paper to produce an entrance examination fee refund application containing the following details (A to E), and send it by postal mail to the School of Science and Technology Accounting Section.

- A. Reason for refund request
- B. Full name (furigana)
- C. Address and postal code
- D. Contact telephone number
- E. Education program to which you applied

Address for refund requests:

Accounting Section (Kaikei-gakari), School of Science and Technology, Gunma University

1-5-1 Tenjin-cho, Kiryu-shi, Gunma 376-8515

Telephone: 0277-30-1068

(5) Exemption from the entrance examination fee

As a special provision, applicants affected by disasters, such as the Great East Japan Earthquake or a typhoon, etc., are exempted from the total amount of the examination fee.

## [Eligibility for examination fee exemption]

### 1. Special provisions related to the Great East Japan Earthquake

- 1) An applicant affected by the Great East Japan Earthquake in the region in which the Disaster Relief Act applies and to whom any of the following apply:
  - ① An applicant with regard to whom the home owned by the person paying his or her school fees was either completely destroyed, mostly destroyed, partially destroyed, or washed away
  - ② An applicant with regard to whom the person who would have been responsible for paying his or her school fees has died or is missing
- 2) An applicant for whom the home residence of the person paying his or her school fees is in the designated “Restricted area,” “Planned evacuation area,” “Difficult-to-return zone,” “Restricted residence zone,” or “Zone in preparation for the lifting of the evacuation order” due to the incident that occurred at the Fukushima Daiichi Nuclear Power Plant

### 2. Special provisions related to typhoons, etc.

- 1) An applicant affected by a typhoon or other disaster, in a region in which the Disaster Relief Act applies, that occurred within one year of the application deadline and to whom any of the following apply:
  - ① An applicant with regard to whom the home owned by the person paying his or her school fees was either completely destroyed, mostly destroyed, partially destroyed, or washed away
  - ② An applicant with regard to whom the person who would have been responsible for paying his or her school fees has died or is missing
- 2) Regarding the “Regions subject to the Disaster Relief Act” for disasters, such as typhoons, as specified by Gunma University, please refer to the University website (Admission information > Tuition and scholarships (入試情報 > 学費・奨学金)).

Applicants to whom the above information applies should download the “Application for exemption from examination fee” from the University website (Admission information > Tuition and scholarships (入試情報 > 学費・奨学金)) and enclose the relevant documents along with their admission application documents. For inquiries about the submission of documents, please contact the Admission Section, Gunma University between 8:30 a.m. and 5:15 p.m. on weekdays (Telephone: 027-220-7149).

Admission information > Tuition and scholarships (入試情報 > 学費・奨学金)

URL: <https://www.gunma-u.ac.jp/admission/adm004/g2167>

## (6) Application documents

Please note that Gunma University may be unable to accept your application if any documents are missing or incomplete.

	Documents to be submitted	Who should submit	Summary
①	Auto reply email	All	Print out the reply email you receive after you have finished the online registration.
②	Photograph sheet and exam admission ticket	All	Form designated by Gunma University (Form1). Write your name and the education program you are applying for, and paste your photograph to the form.
③	Academic transcript (undergraduate) (*)	All	This must be an official transcript issued by your previous university. (Original only: copies are not acceptable.) *Attach a translation into Japanese or English if the document is written in a language other than Japanese or English. (If possible, the translation should be done by your previous university.)



	Documents to be submitted	Who should submit	Summary
④	Academic transcript (master's) (*)	All	This must be an official transcript issued by your previous university. (Original only: copies are not acceptable.) *Attach a translation into Japanese or English if the document is written in a language other than Japanese or English. (If possible, the translation should be done by your previous university.)
⑤	Certificate of completion or Certificate of expected completion (*)	All	This must be an official certificate issued by your previous university. (Original only: copies are not acceptable.) This is not required if the applicant is a graduate of the Graduate School of Engineering or the Graduate School of Science and Technology at Gunma University. *Attach a translation into Japanese or English if the document is written in a language other than Japanese or English. (If possible, the translation should be done by your previous university.)
⑥	Master's thesis summary	Applicants who have completed a master's course	Using A4 paper, present a summary of the content of your master's thesis in no more than 2,000 characters in Japanese (or no more than 500 words if written in English).
⑦	Master's course research summary	Applicants who are expected to complete a master's course	Using A4 paper, present a summary of the content of your master's course research in no more than 2,000 characters in Japanese (or no more than 500 words if written in English).
⑧	Published articles (*)	Relevant applicants	Applicants who have published articles or research results should present a copy of such articles with a result list.
⑨	Acceptance for entrance exam	Adult Entrance Exam	Form designated by Gunma University (Form 4)
⑩	Research results list (*)	Adult Entrance Exam	Form designated by Gunma University (Form 5) (These details may also be submitted on A4 paper)
⑪	Reason for application	General entrance exam and international students	Form designated by Gunma University (Form 6) (These details may also be submitted on A4 paper; maximum of 1,000 characters in Japanese or 250 words if written in English)
⑫	Reason for application and research proposal	Adult Entrance Exam	Form designated by Gunma University (Form 7) (These details may also be submitted on a sheet of A4 paper; maximum of 1,000 characters in Japanese or 250 words if written in English)
⑬	Application form for Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology	Relevant applicants	Submit this form (Form 8) if you wish to take the Heavy Ion Medical Engineering Course.
⑭	CV (*)	International students	Form designated by Gunma University (Form 2)
⑮	Confirmation of nationality and residency status	International students	Residence certificate copy (Individual Number not shown) stating nationality, residence status, and period of stay as issued by the mayor of the municipality in which you reside in Japan, or passport copy (showing full name, nationality, residency status and period of stay in Japan), etc. *If you do not have any address in Japan yet, you can submit a copy of your passport (photograph page). You will need to submit a copy of your residence certificate later, during admission procedures.

	Documents to be submitted	Who should submit	Summary
⑩	Certificate of success on Ph.D. candidacy examination	Applicants to whom application requirement (6) applies	This must be issued by your previous university.
⑪	Certificate of examination fee transfer	All	Print out the form designated by Gunma University (Form 3) and attach your “Certificate of Payment” to the designated section on the form.
⑫	Exam admission ticket mailer	Residents of Japan	A self-addressed business envelope with a 344-yen stamp attached. The envelope size must be 120 mm x 235 mm, called “Nagagata #3 (長形3号)” in Japan.

Note: **1. Applicants who have passed the entrance qualifications assessment are not required to submit documents marked with an asterisk (\*).**

2. No changes will be permitted after the University receives your application.

(7) Address for the submission of application documents

**Admissions and Graduate School Section  
School of Science and Technology, Gunma University  
1-5-1 Tenjin-cho, Kiryu-shi, Gunma-ken 376-8515**

\*Send your documents by simple registered express post, using an envelope that can be put in without folding the document of A4 size (such as a Kakugata #2 – 角形 2 号 – envelope). On the front side of the envelope, write “Doctoral Program Application Documents” in red.

\*If sending from outside Japan, use a trackable shipping method such as EMS (Express Mail Service).

(8) Exam admission ticket

When the online registration and the contents of the application documents delivered to the University are confirmed and your application is formally lodged, the exam admission ticket will be sent out to you in the exam admission ticket mailer you provided, by Thursday, February 22. Be sure to bring your ticket on the day of the examination.

For applicants residing outside Japan, the ticket will be sent as a PDF file by email. Print out your ticket on white A4 paper, and be sure to bring it on the day of the examination.

\*After your ticket arrives, check that details such as the name of the examinee are consistent with the information you provided in your application. If there are any errors, or if the exam admission ticket does not arrive after Thursday, February 22, please contact us as shown below.

Admissions and Graduate School Section, School of Science and Technology, Gunma University  
Telephone: 0277-30-1039 / 1037  
E-mail: kk-kogaku6@ml.gunma-u.ac.jp

## 5 Prior consultation for applicants with disabilities

Please consult Gunma University in advance before applying if special considerations are required with regard to the examination or for university study due to disabilities.

(1) Consultation period

The period ends on Friday, January 26, 2024, but we encourage you to consult as soon as possible.

(2) Consultation process

Please submit the Consultation Form designated by the Graduate School of Science and Technology (refer to

the School's website: [https://www.st.gunma-u.ac.jp/graduate\\_exam\\_doctor/](https://www.st.gunma-u.ac.jp/graduate_exam_doctor/)) and attach the necessary documents, such as a medical certificate issued by a doctor. If necessary, an interview with the applicant or an authorized representative may be conducted.

(3) Address for the submission of Consultation Form

Admissions and Graduate School Section, School of Science and Technology, Gunma University

Telephone: 0277-30-1039 / 1037

E-mail: [kk-kogaku6@ml.gunma-u.ac.jp](mailto:kk-kogaku6@ml.gunma-u.ac.jp)

## 6 Screening process

(1) Screening for admission will be determined through an overall assessment including review of submitted documents, an oral examination on the subjects related to research in the domain to which you are applying (including English ability test), and an interview (for a personality test). If it is judged difficult to conduct the oral examination and interview face-to-face, these may be conducted online.

(2) Exemption from the oral exam and interview for applicants residing outside Japan in the International Student Entrance Exam

Applicants residing outside Japan with vastly superior academic ability and achievements who are recognized as being qualified for the Doctoral Program on the basis of an assessment of the application documents and an online interview, etc., may be exempted from the oral exam and interview. The applicants considered to be eligible for the exemption will be notified by a few days before the exam date.

## 7 Examination schedule and location

(1) **Date/time of examination:** The date and time will be specified by the doctoral domain to which you are applying, in the period **from Friday, March 1 to Tuesday, March 5, 2024.**

(2) **Location of examination: Gunma University School of Science and Technology Kiryu Campus**  
(Refer to the Examination Location Information. Detailed information including examination rooms, etc. will be informed later.)

## 8 Announcement of successful applicants

A notification of successful exam completion shall be mailed to successful applicants on Monday, March 18, 2024. In addition, the exam participation numbers of successful applicants shall be published on the Gunma University School of Science and Technology website (URL : <https://www.st.gunma-u.ac.jp/>) from 10:00 a.m. on the same day through Friday, March 29. Notices will not be posted on the University campus.

No information on examination results can be provided by telephone.

## 9 Admission procedures

Information about admission procedures will be provided in early February.

(1) Fees required for admission procedures

Admission fee: 282,000 yen

Note: a. If the admission fee has been revised at the time of your admission, the revised fee amount will apply.

b. Information on how to pay the admission fee will be provided separately.

c. Paid admission fees cannot be refunded for any reason.

d. **Payment of the admission fee is not required from applicants continuing on to the Doctoral**

**Program following expected completion of a Master's Program at the Graduate School of Science and Technology at Gunma University.**

(2) Payments required after admission

Tuition fee: [First semester] 267,900 yen, [Annual] 535,800 yen

Note: a. If the tuition fee has been revised at the time of your admission or during your time of study, the revised tuition fee amount will apply.

b. Information on how to pay the admission fee will be provided separately.

c. If desired, the tuition fee (either the first semester's or the full year's fee) can be paid at the same time as paying your admission fee.

d. If you have completed the admission procedures and have paid the tuition fee, then decline the offer of admission by Friday, March 29, 2024, you can request to have the paid tuition fee refunded, following specified procedures.

(3) Other expenses

In addition to the admission and tuition fees, the following expenses apply:

Personal accident insurance for students pursuing education and research:	2,600 yen
Liability insurance for students pursuing education and research:	1,020 yen
(The above two expenses are a mandatory set, totaling 3,620 yen)	
School association membership fee:	15,000 yen
Total:	18,620 yen

\* In addition to these fees, there is the Gunma Daigaku Kogyokai (Alumni Association) membership fee of 50,000 yen for applicants who are not already its members, which brings to total to 68,620 yen. These fees should be paid by postal transfer at a Post Office using the payment handling form provided after you have completed admission procedures.

(4) Regarding the obtaining of "Certificate of Eligibility (COE)"

Those who do not have a Status of Residence are required to obtain a Certificate of Eligibility (CoE). It may take 1-2 months to issue the certificate after application. Please check “在留資格の取得について (About obtaining a Status of Residence)” on the university website (URL/QR code below) in advance, prepare the necessary documents and submit them along with your enrollment procedures. If you are unable to obtain the documents required for a Status of Residence in time, please be sure to complete other enrollment procedures during the period of the enrollment procedure and notify us of the progress of your CoE at that time.

URL : <https://www.gunma-u.ac.jp/international>

The password is “gunma8510”



(5) Admission fee and tuition fee exemption/ deferment

Certain students for whom the payment of school expenses is considered to be exceptionally difficult due to special circumstances may be exempted from paying the admission fee or tuition fee.

A temporary payment deferment may also be obtained by students for whom paying the admission fee or tuition fee by the fixed deadline is considered to be difficult.

If you wish to apply for exemption or deferment, please refer to the “Admission information > Tuition and scholarships (入試情報 > 学費・奨学金)” section of the Gunma University website (<https://www.gunma-u.ac.jp/>).

Inquiries: Student Support Section, School of Science and Technology, Gunma University

Telephone: 0277-30-1042 / 1047

## (6) Scholarships

To assist students with excellent character and academic results for whom study is difficult due to economic reasons, the Japan Student Services Organization and others offer scholarships and loans for academic support.

If you wish to apply, refer to the “Admission information > Tuition and scholarships (入試情報 > 学費・奨学金)” section of the Gunma University website (<https://www.gunma-u.ac.jp/>).

Inquiries: Student Support Section, School of Science and Technology, Gunma University

Telephone: 0277-30-1042 / 1047

## 10 Academic year

The academic year starts on April 1 of each year and ends on March 31 of the following year.

## 11 Special education methods

The following special education methods may be applied to students admitted through the Adult Entrance Exam, if requested.

(1) Special education methods as established in Article 14 of the Standards for Establishment of Graduate Schools  
Article 14 of the Standards for Establishment of Graduate Schools stipulates considerations for adult education as follows: “In a postgraduate course, appropriate education methods, such as classes or research guidance at night or at other specified time/period, may be provided when it is recognized that a special educational need exists.”

A study plan will be drawn up after the application for special methods has initially been proposed by the student to the supervisor. The student will be permitted to take all of the credits required for course completion (16 credits) at night or outside the standard hours.

For details of how to apply, contact the Admissions and Graduate School Section, School of Science and Technology.

(2) Extended study period system

In the 2008 academic year, based on Article 16-2 of the Gunma University Graduate School Regulations, the Graduate School of Science and Technology introduced a system of extended study periods for students who cannot complete the course without extending the standard course length (two years for a master’s program and three years for a doctoral program), on the grounds of limited time available for study and research due to employment or other factors. This system enables eligible students to complete the planned curriculum and earn their degree following advance approval to enroll for an extended study period that exceeds the standard course length. To use this system, students must submit an application, which will be assessed for approval.

Under this system, the study period can be extended to up to four years for a master’s program and up to six years for a doctoral program.

## 12 Notes for international student applicants

(1) Students admitted under the international student entrance exam are encouraged to undertake preparatory education in English language and Japanese language.

(2) The International House is an accommodation exclusively for international students. Applicants who would like to be accommodated here should submit an application for accommodation to the Student Support Section of the School of Science and Technology after the examination results have been announced. Accommodation is provided following a screening process.

Inquiries: Student Support Section, School of Science and Technology, Gunma University

Telephone: 0277-30-1023 / 1024

### **13 Protection of applicants' personal information**

Gunma University utilizes the personal information of applicants collected from submitted application documents, entrance examination screening processes, and admission procedures. This personal information will be handled in accordance with the Regulations on the Protection of Personal Information Held by National University Corporation Gunma University and used only for the following purposes:

- (1) To screen applicants for admission (including related operations, such as statistical processing)
- (2) As enrolled student data, in the case of applicants who have completed admission procedures: provision of course guidance and student support services, and to collect tuition fees
- (3) To conduct surveys and research for the purpose of university management (including research to improve entrance examinations, survey and analysis of applicant trends, or preparation of statistical data.)

Personal information used when publishing statistical surveys or research results will be processed to ensure that individual identities cannot be ascertained.

In performing the above operations, the University may outsource some tasks to external providers, subject to an agreement concerning the appropriate handling of personal information.

## **Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology ( Heavy Ion Medical Engineering Course)**

As a treatment method that is able to reduce the burden on the body and provide a high QOL (quality of Life), heavy ion radiation therapy is expected to be important in the future. Gunma University is the only university with a PhD graduate course that has a heavy ion therapy equipment, making it the only university that can provide education research, and human resource training in heavy ion radiation therapy.

Program for Cultivating Global Leaders in Heavy Ion Radiotherapy, Science and Technology has been created to collaborate with Graduate School of Medicine since 2019.

The number of applicants is around two. After enrolling in the master's program, applicants for this program will have a separate examination in September.

This program is a five-year course combined the master's program and doctoral program.

In this degree program, we have established Leading Heavy Ion Radiotherapy, Science and Technology Collaborative Course that integrates medicine and engineering as part of Graduate school of Medicine and Graduate school of Science and Technology. In this way, this program aims to train leaders in the fields of radiation oncology, engineering physics, and medical biology that can function anywhere in the world with an excellent disposition and that have the skill to lead the interdisciplinary advanced medical field of heavy ion therapy across fields of expertise. This course also aims to train research and development leaders in companies developing advanced heavy ion therapy equipment.

### **\* Medical Physics Course**

In "heavy ion radiotherapy" using high-energy carbon rays and "IMRT" using X-rays, which are advanced radiotherapy, medical physics researchers and clinical practice who develop and pass on the knowledge of medical physics. Human resources of medical physicists who are active in the field are indispensable. Therefore, we set up a medical physics course in the heavy ion beam medical science and engineering cooperation course to learn both the basics of heavy ion beam medicine and biology, advanced clinical research of heavy ion beam, and development and operation technology of advanced medical equipment, and their characteristics. Comprehensive operation and development of domestic and overseas radiation / heavy ion beam research bases, heavy ion beam therapy facilities, heavy ion beam therapy, or international guidance in the advanced medical device development industry, depending on the central academic field. We train specialists in the field of medical physics who can become people.

### **《For more information》**

Admissions and Graduate school Section  
School of Science and Technology, Gunma University  
(Program for Cultivating Global Leaders in Heavy Ion  
Radiotherapy, Science and Technology)  
1-5-1 Tenjin-cho, Kiryu, Gunma  
376-8515 Japan  
TEL:0277-30-1037  
Email: [kk-kogaku6@ml.gunma-u.ac.jp](mailto:kk-kogaku6@ml.gunma-u.ac.jp)

## **Special program " Education Program on Intelligence and Control for Developing Human Resources of Japanese Companies"**

This program started in 2022 by adopting the Ministry of Education, Culture, Sports, Science and Technology's "Special Program for Priority Placement of Government-sponsored Foreign Students". Interested applicants should select the domain of Mechanical Science and Technology (doctoral course) and apply for the "special program" before taking the admission examination.

<< Summary of the program >>

The program aims to acquire excellent international students and develop them into human resources who will be involved in the next-generation intelligence and control technical profession at the forefront of Japanese companies. The international students will acquire expertise in next-generation intelligence and control, including mechatronics, automatic control, artificial intelligence, and data science. They will participate in project research to put them into practice and develop Japanese-style R&D capabilities. In addition, the program will provide preferential treatment for Japanese language education, corporate internships, etc., to support employment in Japanese intelligence and control technology-related companies.

This program accepts both Japanese students and international students.

This program focuses on the mechatronics and intelligence/control fields, which are the strengths of the university's Mechanical Science and Technology department, the hosting department of the program. The contents of education and research are based on the premise of collaboration with Japanese students by forming buddies. Each of the agreement schools planning to recruit undergraduate students must have departmental strengths in science and technology and can hold joint symposiums with Gunma University, project activities for regional innovation, and formulate collaborative research. By participating in these, Japanese students of our university will have the opportunity to grow through collaboration with experts from other countries.



# **Double Doctoral Degree Programme with Deakin University, Australia (Civil and Environmental Engineering) [Announcement]**

A three-year all English graduate doctor's double degree course will start in academic year 2024-2025.

## ➤ Features

### 1. Double degrees – a single defense

Students are enrolled in both Gunma University and Deakin University, and will earn 2 separate degrees, 1 from each institution. The PhD is defended in just 1 of the institution participating in the joint supervision agreement, as determined by the two research advisers. A dissertation can be written in English.

### 2. Research abroad

Students are offered the opportunity to do his/her research at Deakin University during the second year of the programme under the joint supervision of faculty members from both universities.

## ➤ Curriculum, requirements for completion

Please visit the link below for more information.

<https://www.facebook.com/GunmaCEE/>



Now you can transfer funds to pay for your entrance examination - 24 hours a day -  
from your nearest Lawson, Ministop, FamilyMart, Seven-Eleven or Credit Card.

### 1 Advance Web Application

Visit the payment site homepage from your computer or cell phone at:

<https://e-shiharai.net/>



※ You can not correct or cancel anything once your credit card payment has been made. Please check all your information carefully before you confirm the application.

※ If you input the wrong information when trying to obtain your application number, please start again from the beginning and make your payment.  
If you are not able to make the required payment before the due date you will receive this deadline upon completing the online application, all the information you had input will be canceled automatically.

### 2 Convenience Store Payment

The application fee cannot be paid through an ATM. Be sure to make your payment at the cash register.

### Credit Card Payment

[13-digit Payment Slip Number]  
払込票番号

**Tell the counter staff  
that you want to  
make an  
"Internet shiharai."  
Then provide your Payment  
【払込票番号】  
Payment Slip Number**

A multifunction copier can not be used to make payment.

LAWSON MINISTOP

[11-digit Customer Number]  
お客様番号  
[4-digit Verification Code]  
確認番号

**Touch the "各種サービスメニュー"  
option  
Various Service Menu**

**Select the "各種代金・インターネット受付"  
All Payments, Internet Reception  
button on the touch screen**

**Touch the "各種代金お支払い"  
option  
All Payments**

**Touch  
"マルチペイメントサービス"  
Multi-Payment Service**

**Enter your  
【お客様番号】【確認番号】  
Customer Number Verification Code**

FamilyMart

[11-digit Customer Number]  
お客様番号  
[4-digit Verification Code]  
確認番号

**Select the "代金支払い"  
All Payments  
on the touch screen**

**Touch the  
"各種代金お支払い" option  
All Payments**

**"番号入力画面に進む"  
Advance to the "Entering number" page**

**Enter your  
【お客様番号】【確認番号】  
Customer Number Verification Code**

It is possible to use a card which carries a name different from that of the applicant. However, please make sure that the information on the basic information page is the applicant's information.

Please select "credit card" for the payment method when making your Web application.

**Input your card information.**

All of your application information is displayed. Check and Click "確定".

- Make the payment at the register.
- Receive an Application Fee Statement. Detach the Certificate of Payment (receipt) portion.

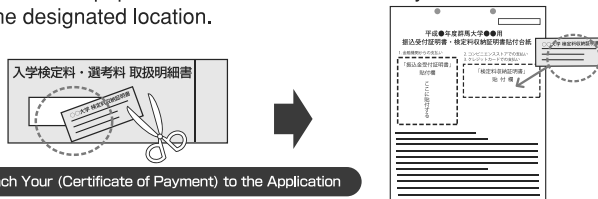
- Loppi, FamiPort, or K-Station issues a funds transfer receipt. You will need to take this to the cash register within 30 minutes and make the actual payment.
- Receive an Application Fee Statement. Detach the Certificate of Payment (receipt) portion.

- Payment has been completed. Please write down "受付番号" (Receipt Number) and "取納証明書" (Certificate of Payment).

### 3 Application

#### [Paying at Convenience Store]

Affix the receipt portion to "The Certificate of Payment" in the designated location.



Attach Your (Certificate of Payment) to the Application

※ When attaching the certificate of payment, be sure to use glue which is suitable for use with thermal paper and pressure-sensitive paper. Please check the glue label.

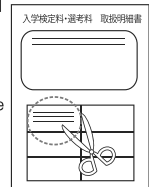
※ In the case that you have made your payment at Convenience Store, it is not necessary to enclose a bank receipt of any kind.

#### [Paying by Credit Card]

After making your payment, please make sure you have access to a printer with paper(A4). Access "申込内容照会"(Inquiry) at e-shiharai.net.

Please [1. Check your card.][2. Input Receipt Number.][3. Input your Birth Date.(YYYY/MM/DD)], and click "照会する".

Then all of your application information is displayed. Click Blue-button "証明書を発行する". Affix the cutting portion of "取納証明書"(The Certificate of Payment) in the designated location. Enclose in an envelope with all other necessary application documents.



In the case that you have made your payment using a credit card, it is not necessary to enclose a bank receipt of any kind.

- During payment periods and application periods mentioned in the application documents, you can make a payment anytime. Please confirm from application documents and complete payment in time for the application period.
- On the last date of the payment period, the web application will be closed at 5pm, and the final deadline for the information terminal at convenience stores (Loppi, Fami Port, or K Station) will be at 5 pm.
- Your inquiry about the payment of the entrance examination fee is not able to be handled at the convenience store. For further information, please check our website.
- Please note that refund is not possible once you have made a payment of Entrance examination fee.
- A fee is added to Examination fee. For further info, please visit our website.
- Please directly contact the credit card company if your card is not accepted.
- It will be announced on our website if either the convenience stores which handle payments or the methods of payment are changed.

**Gunma University Graduate School of Science and Technology  
(Doctoral Program)  
Faculty Members and Fields of Specialization**

※Please make sure to receive an approval for acceptance from the supervisor before applying.

◆ **Domain of Materials and Bioscience**

Faculty Members	Fields of Specialization
Professors	
Naoki Asakawa Motoko S. Asano	<ul style="list-style-type: none"> <li>▪ Bio-inspired devices using emergent property found in polymers</li> <li>▪ Photophysics and design of photofunctional composite molecular systems including coordination compounds</li> </ul>
Hideki Amii Yusuke Inoue Hiroki Uehara Masafumi Unno Md. Zakir Hossain Tetsuo Okutsu Hiroaki Ozaki Ken-ichi Kasuya	<ul style="list-style-type: none"> <li>▪ Development of synthetic organic reactions and their applications</li> <li>▪ Functional analysis of the liver-enriched nuclear receptors using gene-targeted mice</li> <li>▪ Development of property and functionality of polymeric materials by drawing techniques</li> <li>▪ Organosilicon and organic heteroatom chemistry: molecular design, synthesis, and application</li> <li>▪ Chemical modification of epitaxial graphene on SiC substrate</li> <li>▪ Physical chemistry, photochemistry and crystal growth</li> <li>▪ Development of modified nucleic acids and its application</li> <li>▪ Structure and function of polyester-degrading enzymes, screening of microorganisms involved in the environmental cleanup</li> </ul>
Toru Kyomen Kiichi Sato Soshi Shiraishi Yoshihiro Sumiyoshi Masashi Sonoyama Hiroshi Takahashi Shigeki Takeda Yosuke Nakamura	<ul style="list-style-type: none"> <li>▪ Solid state chemistry and design of functional oxides</li> <li>▪ Development of micro bioanalysis systems</li> <li>▪ Development of carbon-based nanoporous materials and electrochemical capacitors</li> <li>▪ Studies on molecular structures of transient species and complexes consisting of radicals</li> <li>▪ Biomolecular science, Biophysical chemistry of proteins, Biospectroscopy, Bioinformatics</li> <li>▪ Structural analysis and thermal study of model biomembranes</li> <li>▪ Functional analysis of receptors, characterization and application of protein self-assembly</li> <li>▪ Construction and properties of novel <math>\pi</math>-conjugated systems including fullerene chemistry and supramolecular chemistry</li> </ul>
Minoru Hanaya Jun-ichi Fujisawa Ichiro Matsuo Takako Muraoka * Takao Yamamoto	<ul style="list-style-type: none"> <li>▪ Development and characterization of functional solid-state materials</li> <li>▪ Studies of organic-inorganic hybrid materials for light energy conversions</li> <li>▪ Glycoscience, Glycotechnology, Synthetic study of glycoconjugates</li> <li>▪ Studies on unique ligands with heavier typical elements and their transition metal complexes</li> <li>▪ Statistical physics</li> </ul>
Associate Professors	
Shinji Iwamoto	<ul style="list-style-type: none"> <li>▪ Solvothermal synthesis of inorganic materials and their performance as catalysts autoantigens, advanced functional foods for prevention of diseases</li> </ul>
Hiroyuki Oku	<ul style="list-style-type: none"> <li>▪ Synthetic vaccines and diagnosis material; biofunctional chemistry; biomedical and functional polymers</li> </ul>
Takafumi Shimoaka	<ul style="list-style-type: none"> <li>▪ Physical chemistry and vibrational spectroscopy on molecular aggregation systems transition-metal complexes</li> </ul>
Tsuyoshi Takahashi Nobuhiro Takeda	<ul style="list-style-type: none"> <li>▪ Construction and application of functional molecules using peptide and protein engineering</li> <li>▪ Synthesis of metal complexes bearing new ligands for the purpose of activating small molecules</li> </ul>
Yuya Tachibana Nobukazu Nameki Tomohisa Moriguchi Minoru Yamaji Keiichi Yamada Toshitada Yoshihara	<ul style="list-style-type: none"> <li>▪ Development of biobased and biodegradable polymers</li> <li>▪ Analyses of novel translation regulation mechanisms, and structural bioinformatics</li> <li>▪ Development of functional oligonucleotides, chemistry of natural products</li> <li>▪ Photophysics and photochemistry of organic and organometallic compounds</li> <li>▪ Development of novel bioactive peptides utilizing molecular imaging technique</li> <li>▪ Photophysical and photochemical studies of aromatic compounds and its application for bioimaging</li> </ul>
Masaru Yoneyama	<ul style="list-style-type: none"> <li>▪ Transition metal-catalyzed polymerization, Synthesis of polymers from unutilized resources</li> </ul>
Visiting Professors	
Hideki Abe Takayuki Kawashima Noriaki Seko Mitumasa Taguchi Keiji Numata Yasunari Maekawa Tetsuya Yamaki	<ul style="list-style-type: none"> <li>▪ Studies on molecular and material design of polymers from biomass organic chemicals</li> <li>▪ Creation of new functional molecules utilizing main group elements</li> <li>▪ R &amp; D of the polymer modification technique by radiation processing</li> <li>▪ Quantum beam reaction and environmental / medical applied research</li> <li>▪ Studies on structure-function relationship of spider dragline silk and artificial silk materials</li> <li>▪ Synthesis and structure/property analysis for polymer functional materials</li> <li>▪ Nanotechnology Research and Material Development for Application to Next-Generation Energy Devices</li> </ul>
Hiroki Yamamoto	<ul style="list-style-type: none"> <li>▪ Study on Ultra-finefabrication Materials Based on Reaction Induced by Quantum Beam</li> </ul>

\* will retire in March, 2025

◆Domain of Mechanical Science and Technology

Faculty Members	Fields of Specialization
<p>Professors</p> <p>Kenji Amagai Mikiya Araki Tsuneaki Ishima</p> <p>Ikuo Shohji</p> <p>Takaaki Suzuki Nobuaki Nakazawa Yoshihiko Hangai Yusaku Fujii Tomohiko Furuhata Shinichi Maruyama Takao Yamaguchi</p> <p>Ko Yamada</p> <p>Weimin Lin</p>	<ul style="list-style-type: none"> <li>▪ Thermo-fluid engineering, Interfacial flow, Atomization, Environmental fluid engineering</li> <li>▪ Jet engines, Jet noise, Combustion, Spray</li> <li>▪ The experimental elucidation for flow, heat and mass transfer and laser application for flow including small particle</li> <li>▪ Heterophase interface science, micro joining, electronics packaging materials, brazing, surface treatment and corrosion of metals</li> <li>▪ Micromachines and MEMS for bio, optical and IoT applications</li> <li>▪ Human interface, biomedical motion control, and motion planning for a robot</li> <li>▪ Fabrication and mechanical evaluation of porous metals</li> <li>▪ Precision measurement, Optical measurement, Electrical-mechanical measurement</li> <li>▪ Combustion, spray flow, exhaust gas aftertreatment and gas turbines</li> <li>▪ Vibration analysis and measurements of machines and structures, Nonlinear phenomenon</li> <li>▪ Numerical analysis for dynamics of cars, machines and living bodies, Vibration damping, Sound-proof structure, Acoustic black hole</li> <li>▪ System control theory and its application, control of machine and robot, and intelligent control of the machine</li> <li>▪ Developing a high efficiency ultra-precision polishing machine. Reseach for the application of ELID process. Creating a desktop processing machine and test.</li> </ul>
<p>Associate Professors</p> <p>Masahiro Inoue</p> <p>Atsushi Iwasaki Hisanobu Kawashima Shinji Koyama Yoshio Zama Ryosuke Suzuki Akihiro Takita Yuya Tanaka</p> <p>Masato Funatsu</p> <p>Iwanori Murakami Md Abdus Samad Kamal</p>	<ul style="list-style-type: none"> <li>▪ Development and characterization of organic/metal/inorganic hybrid materials, and their application to novel electronic systems</li> <li>▪ Structural health monitoring and composite material</li> <li>▪ Bubble dynamics, heat and fluid flow measurement, and multiphase flow</li> <li>▪ Precision bonding, surface hardening, corrosion resistance, wear resistance</li> <li>▪ Spray flow, Quantitative visualization measurement, Automotive engineering</li> <li>▪ Smart manufacturing, IoT utilization, Digital communications, Material testing technology</li> <li>▪ Optical measurement, Image processing, Social safety, IoT devices</li> <li>▪ Characterization of organic materials and their application to semiconductor and mechatronic devices</li> <li>▪ Hypersonic and high-temperature gas dynamics, Thermal protection system for space vehicle, Plasma diagnoses by spectroscopy</li> <li>▪ Applied electromagnetics, Actuator, Applied of superconducting levitation, Jumping robot</li> <li>▪ Control of next generation vehicular traffic system, model predictive control and intelligent control and their applications</li> </ul>
<p>Visiting Professors</p> <p>Hirohiko Watanabe</p>	<ul style="list-style-type: none"> <li>▪ Soldering, Evaluation of microstructure, Bonding materials for high-temperature power electronics</li> </ul>

◆Domain of Environmental Engineering Science

Faculty Members	Fields of Specialization
<p>Professors</p> <p>Hideyuki Itabashi Takayuki Ohshima</p> <p>Jun-ichi Ozaki</p> <p>Mitsuo Ozawa</p> <p>Shinji Katsura</p> <p>Masanobu Kanai * Yutaka Kawahara</p> <p>* Yoshihiko Shimizu</p> <p>Nobuyoshi Nakagawa</p> <p>Akihiko Wakai Tomohide Watanabe</p>	<ul style="list-style-type: none"> <li>▪ Speciation and removal of heavy metal ions in the environment</li> <li>▪ Applications of pulsed electric field in biotechnology. Development of water treatment system with high-voltage devices.</li> <li>▪ Design and preparation of catalytic carbon materials, particularly used in the applications of fuel cell and biomass conversion.</li> <li>▪ Fire resistance of concrete, Control of cracking due to volume change in concrete at early age</li> <li>▪ Development of manipulation technologies for biological molecules and their industry applications</li> <li>▪ Local disaster prevention, evacuation, disaster information, disaster education</li> <li>▪ Biomass science, development of bio-based materials and utilization of natural fibrous resources</li> <li>▪ Mechanics of sediment transport, fluvial process in stream with vegetation, and river management</li> <li>▪ Development of an efficient liquid fuel cell by means of catalyst preparation and by optimizing the electrode structure.</li> <li>▪ Slope failure mechanisms, soil-structure interaction and their numerical simulation</li> <li>▪ Biological wastewater treatment, microbial and physicochemical degradation of water pollutants, Advanced water / wastewater treatment , resource recovery</li> </ul>
<p>Associate Professors</p> <p>Tsukasa Ito Ken-ichi Uzaki</p> <p>Masahiko Oshige</p> <p>Fei Cai</p> <p>Takahiro Saitoh</p> <p>Kazuyoshi Sato</p> <p>Reiji Noda</p> <p>Miyabi Hiyama</p> <p>Hideyuki Morimoto</p>	<ul style="list-style-type: none"> <li>▪ Water treatment, environmental microbiology and biodegradation of environmental pollutants</li> <li>▪ A study of regional sediment transport from rivers to coastal regions. Development of the calculation model to estimate the sediment discharge of river by using the simple model and field data.</li> <li>▪ Development of bio-molecular manipulation methods and application of reaction process analysis by using molecule design techniques</li> <li>▪ Earthquake-resistant measures for ground and earth structures, safety evaluation of landslides, and shallow ground thermal energy utilization</li> <li>▪ Applied mechanics, computational mechanics and non-destructive evaluation for civil engineering structures</li> <li>▪ Synthesis and processing of ceramic materials and application for energy and environmental devices</li> <li>▪ Development and evaluation of waste/biomass energy utilization processes, Evaluation and design of a local society based on energy/mass flow analysis</li> <li>▪ Application of electrostatics on bio-separation and micro-chemical systems, development of bio-micro-electromechanical systems</li> <li>▪ Development of all-solid-state batteries and novel battery materials</li> </ul>
<p>Visiting Professors</p> <p>Hiroshi Shirai Kenji Tanno Naoki Noda</p>	<ul style="list-style-type: none"> <li>▪ Environmental combustion engineering, clean energy conversion engineering</li> <li>▪ Numerical combustion simulation, Energy control</li> <li>▪ Environmental combustion engineering, aerosol engineering, energy conversion of coal and biomass</li> </ul>

\* will retire in March, 2025

◆ Domain of Electronics and Informatics, Mathematics and Physics

Faculty Members	Fields of Specialization
<b>Professors</b> Kazuyuki Amano You Yin Hiromasa Oku Tsuyoshi Kato Tamihito Gotoh Hiroshi Sakurai Kaoru Shimada Koji Jimura * Yoichi Seki Hayato Sone  Manabu Takahashi Kazumi Tanuma Shin-ichi Nakano Tatsuya Nagao Seiji Hashimoto Osamu Hanaizumi Takashi Miwa Kuniyuki Motojima Yasushi Yuminaka * Shuji Watanabe	<ul style="list-style-type: none"> <li>▪ Computational complexity, theory of algorithms, machine learning</li> <li>▪ Materials and devices for brain-like chip and information storage, nanofabrication, nanometrology</li> <li>▪ Dynamic image control, High-speed image processing, High-speed optical devices</li> <li>▪ Bioinformatics, machine learning, and statistical analysis</li> <li>▪ Material science for optical devices</li> <li>▪ Spintronics, Lithium ion battery, X-ray imaging, medical engineering</li> <li>▪ Evolutionary computation, knowledge discovery and data mining</li> <li>▪ Human cognitive neuroscience, neuroinformatics, and decision neuroscience</li> <li>▪ Data mining, statistical learning theory and applied data analysis</li> <li>▪ Nanometer measurement and fabrication, nanoelectronic devices, high-sensitive biosensor for medical use, crystal growth</li> <li>▪ Theoretical study on electronic properties and magnetism in transition metal compounds</li> <li>▪ Elasticity equations, inverse problems</li> <li>▪ Graph algorithm, and Information visualization, optimization</li> <li>▪ Theory of strongly correlated electron system</li> <li>▪ Motion control, system identification, vibration control, precision control, renewable energy</li> <li>▪ Devices for optical communication, Microphotonics</li> <li>▪ Applied measurement for electromagnetic and ultrasonic wave</li> <li>▪ Radio wave propagation, Wireless measurement, Electromagnetic wave simulation</li> <li>▪ Multiple-valued logic and new-paradigm analog/digital integrated circuits</li> <li>▪ Integral transforms of Fourier type, commutation relations in quantum mechanics and their applications</li> </ul>
<b>Associate Professors</b> Toru Araki Syun-ji Ozaki  Ken-ichi Kawanishi Nobuyuki Kurita Kosuke Suzuki  Masako Suzuki-Sakamaki Toshiki Takahashi Yoshitaka Takahashi Yuki Tanaka Akito Chiba Hirofumi Nagoshi Toshiya Hikihara  * Ken-etsu Fujita Kenta Miura Takafumi Miyazaki Yoshifumi Morita	<ul style="list-style-type: none"> <li>▪ Graph theory, Graph algorithm, Combinatorial optimization</li> <li>▪ The optical properties and electronic energy-band structures of nanostructured semiconductors and ternary compound semiconductors</li> <li>▪ Information and communication systems, performance evaluation, queueing theory</li> <li>▪ Magnetic bearing, maglev motor, automatic control engineering, power electronics [Sabbatical leave]</li> <li>▪ X-ray characterization, Backscatter imaging, Electronic structure, Functional oxide, Lithium rechargeable battery</li> <li>▪ Synchrotron Science, Surface/Interface Science, Multiferroics</li> <li>▪ Physics of compact torus plasmas for thermonuclear fusion reactors</li> <li>▪ Optoelectronics and quantum electronics</li> <li>▪ High-speed arithmetic algorithm, IoT device and its management system, graph theory</li> <li>▪ Photonics, Optoelectronics</li> <li>▪ Analytic number theory, value-distribution of arithmetic functions</li> <li>▪ Low-dimensional strongly correlated electron systems, quantum spin systems, numerical calculation</li> <li>▪ Logic of programming, programming languages, mathematical logic</li> <li>▪ Light-emitting materials and devices, Photoelectric devices</li> <li>▪ Exponential Diophantine equation, Diophantine analysis</li> <li>▪ Theoretical study on low dimensional quantum systems and superconductors</li> </ul>
<b>Visiting Professors</b> Tomio Iwasaki Teruo Kohashi Kazuo Saito Nobukazu Takai Ken Harada	<ul style="list-style-type: none"> <li>▪ Sustainable and bio-compatible materials design with molecular simulations and materials informatics</li> <li>▪ Magnetic metrology, Spin polarized scanning electron microscopy</li> <li>▪ Advanced electronic engineering</li> <li>▪ CMOS analog integrated circuit design and its automated design algorithm.</li> <li>▪ Electron microscopy, electron interferometry, electron holography, and their physical applications</li> </ul>

\* will retire in March, 2025

◆ Gunma University Initiative for Advanced Research (GIAR)

Faculty Members	Fields of Specialization
<b>Professor</b> Keisuke Nimura	<ul style="list-style-type: none"> <li>▪ Gene expression, Gene Therapy, Oncotherapy, DNA barcode, Next Generation Sequencing</li> </ul>

# Examination Location Information

◎ Gunma University School of Science and Technology [群馬大学理工学部]

- **JR and On Foot:** 25-minute walk from the Kiryu Station North Exit [桐生駅], JR Ryomo Line [両毛線]
- **JR and Bus:** After getting off at JR Ryomo Line Kiryu Station (North Exit [北口]), take the Orihime Bus [おりひめバス] for “*Kyu Joshikou-mae iki* [旧女子高前行], *Kamibishi Danchi iki* [上菱団地行], *Umeda Furusato Center-mae iki* [梅田ふるさとセンター前行].” Get off at “*Gunma Daigaku Kiryu Seimon-mae* [群馬大学桐生正門前]” after approximately 7 minutes.
- **Tobu Line and Bus:** After getting off at Shin-Kiryu Station [新桐生駅] on the Tobu Kiryu Line [東武桐生線] take the Orihime Bus in front of the station for “*Kiryu Joshikou-mae iki*, *Kamibishi Danchi iki*.” Get off the bus at “*Gunma Daigaku Kiryu Seimon-mae*” after approximately 15 minutes.

Note 1: The School of Science and Technology was established following a reorganization of the Faculty of Engineering in April 2013. Please note that it is still sometimes referred to as the “Faculty of Engineering [工学部].”

Note 2: Traveling to the exam location by car or motorbike is forbidden.

Note 3: Please be sure to check for the latest public transportation information so that you can reach the exam location well in advance of the exam starting time or the designated time.

