# October 2020 Admission April 2021 Admission

Utsunomiya University

Graduate School of Engineering

Doctoral Degree Program

# **Application Procedure**

(General Admission)
(Special Admission by Recommendation)
(Special Admission for Working Applicants)
(Special Admission for International Students)

# **Utsunomiya University**

"A Wealth of Ideas for the Community and New Knowledge for the World"

#### [Notes about the Application Procedure]

Qualified persons for the entrance examination for April 2021 will be announced in accordance with this booklet. However, the "Graduate School of Regional Development Science (Doctoral Program)" is scheduled to be established in the 2021 academic year, and if it is approved, the applicant will belong to the degree program that the applicant's academic advisor belongs to at the time of application. For information about the degree program that your academic advisor will be in charge of, please contact the Yoto Division of Academic Affairs listed on the next page. In addition, it is possible that there may be a change of supervisor (academic advisor), so please be aware of these considerations before filing your application. For the framework of the Graduate School, please refer to the leaflet "Notice of the reorganization of the Doctoral Program of Utsunomiya University".

Please note that the changes due to the restructuring of the graduate school will occur starting in the 2021 academic year. Thus, there will not be any changes in the entrance examination for the Graduate School of Engineering in October 2020.

The "Graduate School of Regional and Community Development Sciences (Doctoral Program)" is currently in the process of being established and is subject to change.

Research information can be found on the following website:

School of Engineering/Graduate School of Engineering:

http://www.eng.utsunomiya-u.ac.jp/

For those candidates who have suffered from a disaster such as earthquake, wind, or flood damage, Utsunomiya University can provide an exemption from the entrance examination fee. For details, please see page 8. In addition, the university is willing to provide support to those candidates for whom the entrance fee and tuition are an exceptional financial burden. Thus, students who cannot meet the financial needs for enrollment should consult the university for support.

#### **☆** Overall Schedule

	General Admission  Special Admission by Recommendation  Special Admission for Working Applicants  Special Admission for International Students
Application submission	July 29 (Wed.) to August4 (Tue.), 2020 9:00 am to 4:00 pm (Excluding Sat. and Sun.)
Entrance examination  August 27 (Thu.), 2020  From 9:00 am	
Announcement of September 4 (Fri.), 2020 successful applicants Scheduled for 10:00 am	

#### Past entrance examinations

The Graduate School of Engineering's doctoral degree program does not disclose past entrance exam questions.

#### **Handling of personal information**

Personal information submitted to apply to the program (e.g., name, date of birth, gender, address, academic records, and entrance examination results) are used within the range of purposes listed below and shall be handled with appropriate care.

- (1) Administrative operations leading up to entering the program (e.g., applicant screening and entrance formalities)
- (2) Administrative operations after entering the program (e.g., issuance of student IDs, guidance counseling, creation of lists of names, etc.) and for student life-related matters (e.g., scholarships, exemption from tuition fees, etc.)
- (3) Other administrative operations required to carry out education, research, and student support, and to prepare statistical and analytical data, etc.

# Changes to the Entrance Examination Schedule and Selection Method Due to the Spread of the New Coronavirus Infection

Due to the spread of the coronavirus, the admission examination schedule and selection method may change. Any changes will be announced on the entrance exam information page of the university's website, so please check the website at any time.

https://www.utsunomiya-u.ac.jp/admission/graduate.php

#### **Inquiries**

Yoto Branch Office, Student Affairs Department, Utsunomiya University 7-1-2 Yoto, Utsunomiya-shi, 321-8585 Tel: 028-689-6003

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(Attached documents, etc.)

- Application form
- Photo Sheet, Examinee's Card
- Master's thesis summary, research progress report
- Research achievement record
- · Research plan
- •Request for entrance exam application fee receipt
- Permission to apply to the program
- Request for application requirements screening
- Written statement of reason for application
- Resume
- Journal paper summaries, research progress report
- Application form for exemption of entrance examination fee
- Bank transfer form (for payment of admission screening fees)

#### Admission Policy of the Graduate School of Engineering (Doctoral Degree Program)

#### Innovation Systems Engineering

#### 1. What kind of students we seek

- (1) Applicants must have original and creative skills, the flexibility to apply those skills, and a broad international sense; they must be individuals who can develop into leaders of industry.
- (2) Applicants must have broad knowledge and practical skills not only in their specializations but in other fields as well, possessing rich humanity and the motivation to constantly, actively respond to new fields.

#### 2. Basic screening policy

- (1) One point of focus is whether candidate students have the basic academic knowledge and thinking skills required for doctoral thesis research.
- (2) In addition to passion and ability in the fields of math and science, screening criteria include the applicant's motivation to acquire knowledge from broad-ranging fields.
- (3) Independence, logical thinking, expressive ability, communication skills, and ethics are also considered in the screening.

# October 2020Admission April 2021Admission

# Guidelines on Applying to the Graduate School of Engineering's Doctoral Degree Program at Utsunomiya University

#### 1. Enrollment Capacity

[October 2020Admission]

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Course	Capacity
Innovation Systems Engineering	Limited to a few

[April 2021 Admission]

Course	Capacity
Innovation Systems Engineering	30

Note) Capacity refers to the total including special screening for applicants with recommendations, applicants with employment, and international students.

#### 2. Application Requirements

Individuals to whom one of the following clauses applies:

- (1) Individuals who have completed a master's degree or professional degree program (a professional degree as stipulated in Article 5-2 of the Rules for Degrees (Ordinance of the Ministry of Education No. 9 of 1953); the same shall apply hereafter) or who anticipate such completion by the time of entry to the school.
- (2) Individuals who have completed a degree program in a foreign country equivalent to a Japanese master's or professional degree program or who anticipate completion by the time of entry to the school.
- (3) Individuals who have completed the classes required under the Japanese educational system through correspondence courses provided by schools overseas and who have completed a program equivalent to a master's or professional degree program or who anticipate completion by the time of entry to the school.
- (4) Individuals who have completed a program equivalent to a Japanese master's or professional degree program separately designated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) at an educational institute of an overseas graduate school located in Japan, or who expect to complete such a program by the time of entry to the school.
- (5) Individuals designated by the Minister of Education, Culture, Sports, Science and Technology (Ordinance of the Ministry of Education No. 118 of 1989)
  - Individuals who have completed an undergraduate program and have participated in research for two or more years at a university or research institute, and who are recognized by the Graduate School of Engineering as possessing academic ability equivalent to that indicated by a master's degree based on their research achievements
  - 2) Individuals who have completed 16 years of education in a foreign country or who have completed 16 years of Japanese education through a correspondence course provided by a school in a foreign country, and who have participated in research for two or more years at a university or research institute, and who are recognized by the Graduate School of Engineering as possessing academic ability equivalent to that indicated by a master's degree based on their research achievements
- (6) Individuals who the dean of the school recognizes as possessing academic ability equivalent to that indicated by a master's or professional degree during the individual admissions screening, and who will have reached the age of 24 by the time of entry to the school
- Note) Individuals applying for the program under (5) must inquire with the Yoto Branch Office of the Student Affairs Department by June 9 (Tue.), 2020. Individuals applying for the program under (6) should refer to "Acknowledgement of Application Requirements (6) on page9."

#### 3. Application Procedure

#### (1) Application period

From July 29(Wed.) to August 4 (Tue.), 2020 (excluding Saturday and Sunday). Applications are accepted from 9 am to 4 pm.

#### (2) Submission

Yoto Branch Office, Student Affairs Department, Utsunomiya University, 7-1-2 Yoto, Utsunomiya-shi, 321-8585

When submitting via post, write "Application for Graduate School of Engineering Doctoral Degree Program Enclosed" on the front of the envelope in red.

#### (3) Notes

Applicants should contact the research supervisor of their choice before submitting an application.

#### 4. Application Documents

Application documents	Notes	
Application form, examination ticket, photograph form	Enter the required information on the form designated by the school.  Affix a head photo (no hat, facing forward, 4 × 3 cm) taken within three months of application onto each of the Photo Sheet, Examinee's Card	
Letter of recommendation	This must be prepared by the President, Dean (of the Graduate School) or Department Head of the university from which the applicant graduated and securely sealed. (Only applicants for Special Admission by Recommendation)	
Transcript	This must be prepared by the President or Dean (of the Graduate School) from which the applicant graduated and securely sealed.  1) Master's program transcript for applicants applying under application requirements (1), (2), (3), or (4)	
	<ul><li>2) Transcript from the last school attended for applicants applying under application requirements (5) or (6)</li></ul>	
Certificate of (expected) completion of master's program	Must be prepared by the university the applicant graduated from  Not required for applicants who have completed or expect to complete a master's program at Utsunomiya University's Graduate School	
Master's thesis summary and research progress report	<ol> <li>Applicants who have submitted a master's thesis shall submit a summary thereof         (use the School-designated form and write no more than 2,000 characters or no         more than 1,000 words if in English.)</li> <li>Individuals who do not submit a master's thesis shall submit a Research Progress         Report (use the School-designated form and write no more than 2,000 characters         or no more than 1,000 words if in English.)</li> <li>If there are publicly disclosed theses or research achievements other than 1) and 2),         submit a copy of such theses and/or a research achievement record (School-designated         sheet.)</li> </ol>	
Research plan	Please use the School-designated sheet.	

	30,000 yen: Use the School-designated bank transfer slip and deposit the fee into a School account at one of our banks (Ashikaga Bank, Tochigi Bank, or Mizuho Bank). Do not deposit through an ATM. Affix the certificate of remittance issued by the bank to the designated place on the Application Form.		
	Applicants who are continuing with a graduate school program from Utsunomiya University's master's program are exempted from this payment.		
Admission screening fee	Government-financed international students who intend to apply for an extension of the scholarship payment period will be exempted from the screening fee upon designated application. Please inquire with the Yoto Branch Office of the Students Affairs Department before submitting an application.		
	For those applying for fee exemption due to the damage caused by the earthquake, wind, or flood damage, please submit an "Application for exemption of entrance examination fee". (See page 7 below for more details.) In this case, do not pay the entrance examination fee, and circle "Application form for exemption" in the entrance examination fee column of the "Transfer receipt certificate".		
	Permission to apply to the program (designated form)     Applicants enrolled in a doctoral degree program of another graduate school shall submit a form issued by their current school. Applicants under Special Admission for Working Applicants shall submit a form issued by a superior at their place of employment.		
Other matters	<ol> <li>Applicants who do not have Japanese citizenship shall submit a resident's card (listing the period of stay in Japan and status of residence, but not showing the government-issued "My Number").</li> </ol>		
	3) Envelope for the examination ticket (N-3 (120 × 235 mm))		
	Write your name and address on the envelope and affix a 404-yen stamp (recorded delivery fee).		

#### 5. Screening Method and Schedule

Applicants shall be comprehensively screened by an academic achievement test (oral), interview, and submitted documents.

#### **General Admission**

#### (1) Academic achievement test

- 1) Oral examination: Applicants are questioned about their research thesis presentations and specializations as well as research plans.
- 2) Interview

#### (2) Date and time of the entrance examination

August 27 (Thu.), 2020 Oral exam and interview: From 9:00am

#### (3) Venue

Utsunomiya University, Faculty of Engineering, Graduate School of Engineering

#### (4) Announcement of successful applicants

An announcement will be posted on the Faculty of Engineering and Graduate School of Engineering bulletin board at 10 am (scheduled time) on September 4 (Fri.), 2020. Individual notices will also be sent out.

The examination numbers of successful applicants will also be posted on the following website for announcing successful applicants. URL: http://nyushi.utsunomiya-u.ac.jp/goukaku.html

This announcement is made as part of information provision services; applicants should confirm their statuses by the notification sent to each student or on the School's bulletin board. (The announcement will be posted to the website 30 minutes after posting on the School's bulletin board, provided there is no system failure.) Inquiries regarding entrance examination results will not be accepted via telephone or other means.

#### Special Admission by Recommendation

This admission procedure is for individuals applying under application requirement (1) who fulfill the following conditions.

Requirements for admission by recommendation

- 1. An individual with an outstanding academic record who is able to obtain a letter of recommendation from the department head or equivalent
- 2. An individual who can promise to enter the program

#### (1) Academic achievement test

- 1) Oral examination: Applicants are questioned about their research thesis presentations and specializations as well as research plans.
- 2) Interview

#### (2) Date and time of the entrance examination

August 27 (Thu), 2020 Oral exam and interview: From 9:00 am

#### (3) Venue

Utsunomiya University, Faculty of Engineering, Graduate School of Engineering

#### (4) Announcement of successful applicants

An announcement will be posted on the Faculty of Engineering and Graduate School of Engineering bulletin board at 10 am (scheduled time) on September 4 (Fri.), 2020. Individual notices will also be sent out.

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#### Special Admission for Working Applicants

Individuals employed at the time of application must also obtain permission from their supervisor at work.

In accordance with special programs for teaching as stipulated in Article 14 of the Graduate School Establishment Standards, the doctoral degree program of the Graduate School of Engineering offers special measures for working individuals, including classes at night. (Refer to page 10.)

#### (1) Academic achievement test

- 1) Oral examination: Applicants are questioned about their research thesis presentations and specializations as well as research plans.
- 2) Interview

#### (2) Date and time of the entrance examination

August 27 (Thu.), 2020 Oral exam and interview: From 9:00 am

#### (3) Venue

Utsunomiya University, Faculty of Engineering, Graduate School of Engineering

#### (4) Announcement of successful applicants

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This announcement is made as part of information provision services; applicants should confirm their statuses by the notification sent to each student or on the School's bulletin board. (The announcement will be posted to the website 30 minutes after posting on the School's bulletin board, provided there is no system failure.) Inquiries regarding entrance examination results will not be accepted via telephone or other means.

#### Special Admission for International Students

This admission procedure is for international students applying under application requirement (1), (2), or (4). Individuals graduating from a university in Japan and who have completed a master's degree program at a graduate school in Japan are not eligible under this requirement and should instead apply under general admission.

#### (1) Academic achievement test

- 1) Oral examination: Applicants are questioned about their research thesis presentations and specializations as well as research plans.
- 2) Interview

#### (2) Date and time of the entrance examination

August 27 (Thu.), 2020 Oral exam and interview: From 9:00 am

#### (3) Venue

Utsunomiya University, Faculty of Engineering, Graduate School of Engineering

#### (4) Announcement of successful applicants

An announcement will be posted on the Faculty of Engineering and Graduate School of Engineering bulletin board at 10 am (scheduled time) on September 4 (Fri.), 2020. Individual notices will also be sent out.

The examination numbers of successful applicants will also be posted on the following website for announcing successful applicants. URL: http://nyushi.utsunomiya-u.ac.jp/ goukaku.html

This announcement is made as part of information provision services; applicants should confirm their statuses by the notification sent to each student or on the School's bulletin board. (The announcement will be posted to the website 30 minutes after posting on the School's bulletin board, provided there is no system failure.) Inquiries regarding entrance examination results will not be accepted via telephone or other means.

#### **6.** Export Security Measures

Utsunomiya university has adopted the "National University Security Export Control" protocol based on the "Foreign Exchange and Foreign Trade Law". This is directed at preventing international students from interfering with the maintenance of international peace and security by exporting restricted education/research contents. The following regulations have been established to comply with the security export control protocol.

- If a security export control examination is conducted, it may take a long time to complete, and depending on the examination results, the examinee may not be able to receive the desired education or research.
- After enrollment, there may be restrictions on the technology provided and the equipment used. In addition, if regulations are strengthened due to revision of laws, etc., it may become impossible to continue existing research work.

#### **Entrance Examination Fee Exemption**

In order to alleviate the economic burden of those who were affected by disasters etc. and to secure opportunities for students to enter the university, the university will take special measures to exempt the entrance examination fee as follows below.

**Exemption requirements** 

The exemption applies for candidates whose primary household resides in an area to which the Great East Japan Earthquake Disaster or the Relief Act (Act No. 118 of 1947) after March 2011 is applied, and who falls under any of the following categories:

- (1.1) A person who has been issued a municipal certificate whose primary residence has been destroyed or suffered severe damage.
- (1.2) A person whose primary household resides in one of the areas prescribed under the Special Measures Law for Nuclear Emergency Preparedness Act (Act No. 156 of 1999) or those who reside or resided in a (A) Warning area, (B) Planned evacuation area, or (C) Emergency evacuation preparation area.
- (1.3) A person whose primary household has a member that died or became missing due to a disaster.
- (2) Exemption application procedure

Those who intend to receive an exemption from the entrance examination fee must submit an "Application form for exemption of entrance examination fee" with one of the following certificates (possible copies) at the time of application:

- (2.1) For persons under categories (1.1) and (1.2) above, applicants must submit a certificate of damage or injury suffered from natural disaster.
- (2.1) For persons under category (1.3) above, applicants must submit a certificate confirming the loss of a primary household member due to a natural disaster.

Applicants having any questions about the documents to be submitted should contact the Academic Affairs Yoto branch.

Any applicants who are determined not to fulfill the requirements for exemption will be contacted by telephone by the Yoto branch Academic Affairs Division.

#### **Enrollment Formalities**

(1) Enrollment period

Students enrolling in October 2020 shall perform enrollment formalities in September, 2020. Students enrolling in April 2021 shall do so in March; date and other details shall be announced later.

Individuals who do not complete the enrollment formalities during this period will be deemed to have declined entry to the program.

(2) The details of enrollment formalities will be included in the letter of acceptance.

#### **Entrance Fee, Tuition, and Other Financial Matters**

(1) Entrance fee, tuition, and other financial matters

Entrance fee: 282,000 yen

Tuition: 535,800 yen (annual fee)

- \* The entrance fee and tuition are tentative amounts; they may be revised.
- \* If tuition is revised during the program period, the new tuition will apply from the time of revision.
- \* Half of the tuition (267,900 yen) shall be paid by each of the designated deadline.
- (2) Personal accident insurance for students pursuing education and research as well as liability insurance (for 3 years) [as of April 2020]

3,620 yen

#### 10. Exemption from the Entrance Fee and/or Tuition and Collection Postponement

- (1) If payment of fees is recognized to be difficult due to special circumstances, the applicant may be fully or partially exempted from payment of the entrance fee and/or tuition.
  - The admission fee is not exempted for students who enter the graduate program in October.
- (2) If payment of the entrance fee and/or tuition is recognized to be difficult by the designated date, payment may be postponed temporarily.
  - In such cases, inquire with the Yoto Branch Office of the Student Affairs Department for details.

## 11. Advance Consultations on Special Accommodations for Examinations and Studies Due to an Illness, Injury, or Physical Handicap

Individuals requiring special accommodations for the entrance examination or their studies due to an illness, injury, or physical handicap should consult with the Yoto Branch Office of the Student Affairs Department by July 2 (Thu.), 2020.

#### 12. Matters Requiring Attention

- (1) Inquiries regarding enrollment are accepted at the Yoto Branch Office of Utsunomiya University's Student Affairs Department.
  - Please include a self-addressed return envelope (with an 84-yen stamp affixed) when making an inquiry by post.
- (2) If you wish to receive the Application Procedure by post, write "Request for the Application Procedure of the Graduate School of Engineering Doctoral Degree Program" on the front of the envelope in red and include a self-addressed return envelope (K-2 (240 × 332 mm)) with a 250-yen stamp affixed.
- (3) Changes to submitted documents will not be accepted and the admissions screening fee will not be returned after the admissions procedure has been completed.
- (4) The School does not arrange for applicants' lodging.
- (5) Applicants who have submitted an application for admission under requirement (1), (2), (3), or (4) who anticipate completion of another educational program by the time of entry to the school shall submit a copy of a diploma or Certificate of Degree Conferred by the time of entry to the school.
- (6) Applicants who have submitted an application for admission under requirement (1), (2), (3), or (4) who anticipated completion of another educational program by the time of entry to the school but who were not awarded a master's, professional degree, or the equivalent by the time of entry to the school will have their acceptance to the doctoral degree program revoked.

#### 13. Scholarships from the Japan Student Services Organization

Students who wish to apply for this scholarship should refer to the following website. http://www.utsunomiya-u.ac.jp/convenient/campuslife/exemption.php

#### Acknowledgement of Application Requirements (6)

#### 1. Individuals subject to requirements screening

Individuals to whom the following (1) or (2) applies

- (1) Individuals with a bachelor's degree to whom both of the following apply.
  - 1) Individuals who have completed their undergraduate studies and who have participated in research at a university or research institute for two or more years, or who have two or more years of work experience in science- or engineering-related fields
  - 2) Individuals who have achievements in writing, academic theses, academic lectures, academic reports, or patents that are evaluated to be equivalent to or greater than a master's thesis
- (2) Individuals who have graduated from a junior college, specialized vocational high school, technical school, advanced vocational school, or other educational facility and to whom one of the following 1) to 3) apply as well as the condition in 4).
  - 1) Individuals who have completed a diploma course at a junior college or specialized vocational high school and who have participated in research at a university or research institute for two or more years, or who have two or more years of work experience in science- or engineering-related fields
  - 2) Individuals who have graduated from a junior college, specialized vocational high school, or technical school and who are qualified to transfer to a university and who have participated in research at a university or research institute for four or more years, or who have four or more years of work experience in science- or engineering-related fields
  - 3) Individuals who have graduated from an advanced vocational school or other school, or who have completed a program at another type of educational facility but who are not qualified to transfer to a university, and who have participated in research at a university or research institute for six or more years, or who have six or more years of work experience in science- or engineering-related fields
  - 4) Individuals who have achievements in writing, academic theses, academic lectures, academic reports, or patents that are evaluated to be equivalent to or greater than a master's thesis

#### 2. Application procedure and other matters

A requirements screening will be conducted for individuals to whom one of the above applies. Applicants should submit the documents required to undergo screening by the deadline.

#### (1) Required documents

Documents to be submitted	Applicant subject to requirements screening (1)	Applicant subject to requirements screening (2)	Note
Request for application requirements screening	✓	✓	Designated format
Written statement of the reason for application		✓	Designated format
Resume	✓	✓	Designated format
Journal paper summaries, research progress report	✓	✓	Designated format
Research achievement record	✓	✓	Designated format
Copy of thesis, journal paper, etc.	<b>✓</b>	✓	
Transcript from the last school attended		✓	
Diploma or certificate of completion from the last school attended	<b>√</b>	<b>√</b>	
Return envelope (N-3 (240 × 332 mm))	<b>√</b>	<b>√</b>	Self-addressed envelope, 374-yen stamp affixed

#### (2) Application period

Submit the application to the Yoto Branch Office of the Student Affairs Department between June (Tue.) and July 2 (Thu.), 2020 (excluding weekends). Consult with the Yoto Branch Office of the Student Affairs

Department if you cannot submit the application within the designated period. Individuals who are recognized as qualified to apply for the program prior to the start of the application period should notify the Yoto Branch Office of the Student Affairs Department by June 9 (Tue.), 2020.

#### 3. Screening results

- (1) Screenings will be conducted at Utsunomiya University's Graduate School of Engineering and individuals will be notified of the results by July 28 (Tue.), 2020.
- (2) Individuals who have been recognized as qualified to apply for the program should carry out the application procedure between July 29 (Wed.) and August 4 (Tue.), 2020.

# Special Cases of Education Methods as Stipulated in Article 14 of the Graduate School Establishment Standards

In recent years, there have been demands that graduate schools provide education for researchers and engineers who are already in the workforce so that they may acquire higher levels of engineering knowledge and skills that will enable them to play leadership roles in their fields. Providing education to working individuals under the conventional master's and doctoral program format will force such people to take a leave of absence from work, which restricts their opportunities to participate in graduate school education.

Article 14 of the Graduate School Establishment Standards states as follows: "Regarding the establishment of graduate school programs, when special treatment is recognized to be necessary, classes and research guidance can be provided at night or at other specific times and periods that do not interfere with daytime work if done in an appropriate manner." Therefore, the Graduate School of Engineering offers special measures for researchers and engineers who have already joined the workforce.

In view of the above, the Graduate School of Engineering offers special educational programs to researchers and engineers in the workforce who wish to study in a graduate school program as stipulated in Article 14 of the Graduate School Establishment Standards.

- \* The Special Programs for Teaching are summarized as follows.
  - 1. The period of the Special Programs for Teaching is, as a rule, three years.
  - 2. The class schedule subject to Article 14 includes the 11th and 12th periods (5:40–7:10 pm) on weekdays, and from the 1st and 2nd periods (8:40–10:10 am) up to the 9th and 10th periods (4:00–5:30 pm) on Saturdays.
  - 3. Courses and research plans are prepared based on a consultation with the applicant's supervisor of choice.
  - 4. Doctoral program research activities may be conducted at the student's place of employment provided that the research supervisor acknowledges that the student's thesis writing is progressing well, and that the student's company has outstanding facilities and equipment for research available that will bring good results.
- \* Procedure to apply for the Special Programs for Teaching

Consult with your research supervisor in advance, prepare a course plan, and submit it to the office.

#### **Extended Registration Period System**

This system caters to students for whom it is difficult to complete the program within the standard three-year period because of employment or other reasons by permitting them to extend their period of study (up to a maximum of six years) in order to facilitate systematic course planning and effective learning. Course planning and the total number of credits are the same as under the standard three-program, which offers a significant reduction in time load per year.

When approval to extend the registration period has been granted, the three-year doctoral program can be completed, for example, in four years. In such case, the three-year tuition will be paid over a four-year period, which means the financial burden per year is also reduced by distributing the three-year tuition (six terms) over four years (eight terms). (If tuition is revised, recalculation will be made based on the revised fee.)

In order to be accepted into this system for extending the registration period, applicants must submit the required documents to the Dean of Utsunomiya University and obtain permission.

If, due to changing circumstances, an individual is unable to complete the program within the extended period, a further extension may be requested up to a maximum of nine years in total. The further extended period in excess of the standard extended period will be considered to be setback years and standard tuition shall apply. Students may newly apply for this extended registration period during the school year or revise the extension period (from four years to five years or from five years to four years) only once.

The application period for this program is as follows.

#### 1. New application

1) Upon entry into the program: October admission: during the September enrollment procedure prior to

the relevant admission year; April admission: during the March enrollment procedure prior to the relevant admission year

2) During the school year: October admission: by the last day of August of the beginning of the

relevant term; April admission: by the last day of February of the preceding academic year of the beginning of the relevant term

#### 2. Extension or shortening of the extended period

If you wish to extend the registration period, submit a change in the registration period by the last day of the month prior to the final month of the extended period. If you wish to shorten the extended period, submit a change in the registration period by the last day of the month prior to the intended month of completion.

Make inquiries regarding this system to the Yoto Branch Office of the Student Affairs Department. Details will be provided to successful applicants at a later date.

#### Reference

Graduate School of Utsunomiya University Registration Period Extension (excerpt)

#### Article 5 Extending the Registration Period

A fixed period approved as an extension of the registration period for systematic course planning exceeding the standard period (hereinafter referred to as an "extended registration period") shall be, as a rule, denominated in one-year increments and as stated in the clauses below.

- (1) The extended registration period for new students acknowledged as students whose registration has been extended in the master's degree program shall be a maximum of four years, and for students in the doctoral degree program shall be a maximum of six years.
- (2) The extended registration period for students acknowledged as students whose registration has been extended during the course of their study shall be double the number of incomplete years.

#### Article 7 Extension and reduction

Only one change to the extended registration period is permitted. An extension or reduction may be made in sixmonth increments only when recognized to be necessary by the Graduate School Committee. The deadline for submitting an application for a change to the extended registration period shall be stipulated separately.

#### **How to Access the Examination Venue**

• Time from Tokyo

• JR Tokyo Station: Tohoku Shinkansen / approx. 1hr.

Ueno Tokyo Line, Utsunomiya Line / approx. 2 hr.

• JR Shinjuku Station: Shonan Shinjuku Line, Tohoku Shinkansen / approx. 1 hr.15min. (Transfer at JR Omiya Station)

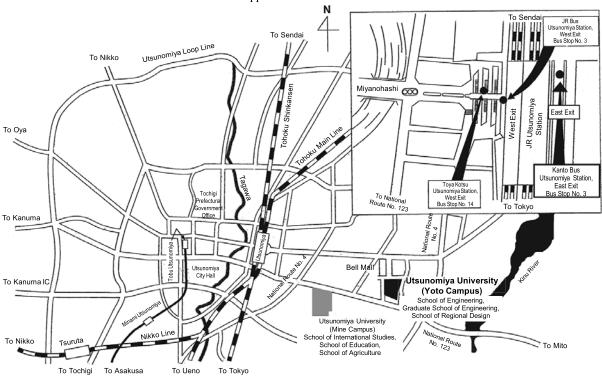
Shonan Shinjuku Line, Utsunomiya Line / approx. 1 hr. 50 min.

• Tobu Railway: From Asakusa Station to Tobu Utsunomiya Station / approx. 2 hr. 30 min.

• Haneda Airport: Airport Limousine, Kanto Transportation / approx. 3 hr.

• Time from Sendai

• JR Sendai Station: Tohoku Shinkansen / approx. 1 hr. 20 min.



- Access from JR Utsunomiya Station and Tobu Utsunomiya Station
- © Utsunomiya University, Faculty of Engineering (approx. 4.2 km from JR Utsunomiya Station)
  - JR Bus (Bound for Haga Machiyakuba, Haga Bus Terminal, Motegi, etc.)
     Board at JR Utsunomiya Station West Exit Bus Stop No. 3 and disembark at the Kogakubu-mae Bus Stop (approx. 20 min.)
  - Kanto Bus (Bound for Mooka, Mashiko, Kaisei Gakuin, Bell Mall, etc.)

Board at JR Utsunomiya Station West Exit Bus Stop No. 14 and disembark at the Kogakubu-mae Bus Stop (approx. 20 min.)

Board at Tobu Utsunomiya Station Bus Stop and disembark at the Kogakubu-mae Bus Stop (approx. 30 min.) Note: Buses bound for other destinations will not stop at Kogakubu-mae.

• Kanto Bus (Udai Junkan Line, clockwise and counterclockwise routes)

Board at JR Utsunomiya Station East Exit Bus Stop No. 3 and disembark at the Udai Kogakubu Seimon Bus Stop (approx. 15 min.)

Note: Buses come about every 30 minutes.

#### Reference

Bus Timetable "Utsunomiya.guide https://utsunomya.guide/
JR Bus Kanto, Utsunomiya Branch Tel: 028-687-0671
Kanto Transportation, Toya hiraide Business Office Tel: 028-662-1080
Kanto Transportation, Yanaze Business Office Tel: 028-633-3482

Faculty	members,	research	contents,	and cou	rses

# **◆** Faculty Members and Research Themes

### Stainable Design and Engineering Course

Name	Title	Research content	Subject taught
⊖Ohmori, Nobuaki	Professor	Urban transportation systems, analysis of human and transportation activities, barrier-free town development	Advanced Sustainable City Planning
⊖Sugiyama, Hisashi	Professor	Mechanism of cement hydration, high-strength concrete, maximized precast concrete curing	Advanced Building Materials
⊖Takayama, Yoshimasa	Professor	System control of structural materials aiming to reduce environmental loads, integrated function structural materials	Advanced Materials Design
⊖Nakajima, Shiro	Professor	Building recycling and resource usage Performance evaluation of wooden buildings and wooden materials	Advanced Building Recycle Technologies
⊖Hasegawa, Hiroaki	Professor	Application of fluid mechanics in the fields of aviation, outer space, medicine, and sports	Advanced Fluid Mechanics
⊖Fujiwara, Hiromi	Professor	High performance concrete and reinforced concrete structures	Advanced Structural Materials
⊖Masuda, Hiroshi	Professor	Mechanical behavior of steel beam end connections, beam joints, press end connections, and column bases of steel building systems; earthquake resistance evaluation assessments of construction	Advanced Earthquake Resistant Design of Structures
Mabuchi, Yutaka	Professor	Low / High friction surface designed by micro / nano engineering Functional surface aiming for high heat transfer / heat insulation	Advanced Tribosystem
⊖Yamaoka, Satoshi	Professor	Project management and financing of infrastructure, project evaluation methods, development and dissemination of renewable energy	Integrated Project Management
⊖Yoshida, Katsutoshi	Professor	Human dynamics, non-linear mechanics, stochastic mechanics	Advanced Stochastic Dynamics
Sato, Ryunosuke	Associate Professor	Planarization process with mechanochemical polishing, nano-machining, ultrafine grinding, grinding processes	Advanced Machine Tool
⊖Zou, Yanhua	Associate Professor	Fundamentals and application of precision machining, special processing, electric and magnetic compound precision processing and magnetic grinding	Advanced Nontraditional Ultraprecision Machining
Shirayori, Atsushi	Associate Professor	Plasticity, tube formation, weight reduction of machine parts	Advanced Metal Forming

### **Sustainable Design and Engineering Course**

Name	Title	Research content	Subject taught
Seiki, Takafumi	Associate Professor	Structural stability of rock construction and long-term stability evaluation, effective use of underground spaces	Advanced Rock Engineering
Sekikawa, Munehisa	Associate Professor	Non-linear dynamics, oscillator synchronization phenomenon, chaos	Advanced Topics in Mathematical Physics
Nakano, Tatsuya	Associate Professor	Research related to the evaluation and improvement of the mechanical performance of joint sections of steel buildings, development of design and construction techniques related to earthquake reinforcement, and repair of existing steel buildings	Advanced Disaster Measures of Buildings against Earthquakes
⊝Fujikura, Shuichi	Associate Professor	Earthquake Resistant Design, Blast and Impact Load Resistant Design, Multi-hazard Resistant Design, Composite Structures of Concrete and Steel	Advanced Earthquake Engineering of Bridges
Fujimoto, Satoshi	Associate Professor	Management and analysis of existing building stocks Maintenance and monitoring of existing building stocks	Advanced Building Stock Management
Hoshino, Satoshi	Associate Professor	Robotics and Artificial Intelligence	Distributed Intelligence and Systems Engineering
Maruoka, Masanori	Associate Professor	High-value-added concrete materials, technology for upgrading industrial by-product concrete materials	Advanced Ecological Materials for Civil Engineering
⊖Yamamoto, Tokujiro	Associate Professor	New functions and structure material inventions through material formation and atomic arrangement controls and assessment thereof, material properties, material formation, material evaluation	Advanced Material Characterization
Watanabe, Shinichi	Associate Professor	Quantification of human psychological states, engineering education teaching methods and evaluation of education effects	Advanced Psychological Measurement

### **Functional Materials Design Course**

Name	Title	Research content	Subject taught
○Ishida, Kunio	Professor	Large-scale quantum-mechanical simulations on the photoexcitation/relaxation dynamics of solids	Advanced Theory of Excited-state Dynamics
○Irie, Akinobu	Professor	Development of new-function quantum devices using a superconducting superlattice structure, research on nano-electronics	Advanced Superconducting Electronics Engineering
○Uehara, Nobuo	Professor	Development of non-linear functional ligands, applied molecular instrumentation engineering	Advanced Molecular Engineering of Analysis
⊖Oba, Toru	Professor	Development of anti-cancer drugs, molecular probes for cellular regulation, and fluorescent probes	Advanced Natural Material Chemistry
○Shan, Yue Jin	Professor	Education and research on functional perovskite-type oxide synthesis and the properties thereof	Advanced Chemistry of Solid State Properties
⊖Yajima, Tetsu	Professor	Analysis of mathematical physics, computational physics, and unlimited flexibility integrable systems	Advanced Solid State Physics
Kashiwakura, Takayuki	Associate Professor	Development of in-solid electronic state analytical technology, research on photoemission spectroscopy and X-ray emission spectroscopy	Advanced Quantum Physics and Engineering
⊝Karikomi, Michinori	Associate Professor	Development of de novo synthesis reactions and synthesis of organic compounds with unique structures by employing de novo synthesis reactions	Advanced Organic Materials Chemistry
Goto, Hiroki	Associate Professor	Study of electrical motors/generators and their applications	Advanced Electrical Machine
Sakai, Yasuzo	Associate Professor	Water treatment using magnetic powder, separation engineering using magnetic fields, reaction control engineering	Advanced Material Chemical Engineering
Sakuma, Hiroshi	Associate Professor	Development of point measurement devices, analysis of crystal structures, development of thin film and nano-particle production devices	Advanced Physics of Condensed Matter
⊖Sato, Takafumi	Associate Professor	Development of high efficiency reaction and separation process with supercritical fluids and membrane	Advanced Supercritical Fluids Engineering

### **Functional Materials Design Course**

Name	Title	Research content	Subject taught
Shimizu, Takashi	Associate Professor	Research on microwave, millimeter wave, and terahertz wave circuit technology as well as material evaluation technology	Advanced Super-High Frequency Application Engineering
⊖Tezuka, Keitaro	Associate Professor	Synthesis and properties of functional inorganic materials	Advanced Inorganic Materials
OMorohoshi, Tomohiro	Associate Professor	Analysis of communication between microorganism at the genetic level and application of pathogenic technology	Advanced Bioinformatics
Yorikawa, Hiroharu	Associate Professor	Research on numerical simulation of solid electronic structures with a focus on low-dimensional materials	Physics of Low-Dimensional Electronic Materials

### **Intelligence and Information Science Course**

Name	Title	Research content	Subject taught
○lto, Satoshi	Professor	MRI imaging and image reconstruction method, medical image processing, image restoration	Advanced Medical Imaging Systems
Ootsu, Kanemitsu	Professor	Analysis of computational systems, parallel processing, optimizing system software	Advanced Computer Systems Architecture
Kamimura, Yoshitsugu	Professor	Measurement of electromagnetic environments, electromagnetic dosimetry for human body	Advanced Biological Information Measurement
⊖Kogami, Yoshinori	Professor	Circuit technology for microwave millimeter waves and material evaluation technology	Advanced Information Transmission
○Sato, Mie	Professor	Image display technology, human-computer interaction, image processing	Advanced Applied Information Mathematical Statistics
OShimawaki, Satoshi	Professor	Biomedical instrumentation and measurements, welfare engineering, musculoskeletal multibody simulation, biomechanics, and medical engineering	Advanced Bioengineering
⊖Hasegawa, Madoka	Professor	Video encoding, image processing, digital watermarks, Web usability, usable security	Advanced Image Coding
○Hirata, Mitsuo	Professor	Robust control theory; sample control theory; high- speed, high-precision positioning control and industrial applications thereof	Advanced Control Engineering
○Funato, Hirohito	Professor	Electric power control with power electronics, power electronics circuits, renewable energy generation	Advanced Power Conversion
⊖Yokoo, Noriyoshi	Professor	Energy-saving systems for construction and urban areas	Advanced Architectural Environment Planning
⊖Yokota, Takashi	Professor	Parallel and distributed computing systems, embedded computer systems, design methodology	Advanced Integrated Information Systems
Azuma, Takehito	Associate Professor	System control theory and research on applications to networking and system biology	Advanced Control Systems Engineering
Koike, Masafumi	Associate Professor	Theoretical elementary particle physics, mathematical physics	Advanced Elementary Particle Physics

### **Intelligence and Information Science Course**

Name	Title	Research content	Subject taught
⊖Koga, Takaaki	Associate Professor	Construction safety, environmental psychology, construction plans, construction design	Advanced Human and Engineered Environmental Studies
⊖Satoh, Eiji	Associate Professor	Locations for establishing medical and welfare facilities (for nursing, the handicapped, and childcare), service level optimization	Advanced Regional Analysis
○Toyama, Fubito	Associate Professor	Evolutionary computation, image processing, pattern recognition	Advanced Evolutionary Computation
Fujii, Masahiro	Associate Professor	Wireless communication systems, telecommunication networks, ubiquitous communication	Advanced Information Communication Protocol
○Mori, Hiroki	Associate Professor	Analysis of verbal communication features and modelling, and application thereof to the advancement of man-machine interactions	Advanced Man-Machine Systems
Mori, Hiroshi	Associate Professor	Computer graphics, image processing	Advanced Image Processing
Yajima, Takahiro	Associate Professor	Geometric research on non-linear dynamics and continuum mechanics	Advanced Applied Geometric Engineering

### **Advanced Interdisciplinary Science Course**

Name	Title	Research content	Subject taught
○limura, Ken-ichi	Professor	Education and research on the properties and structures of organic ultrathin films as well as the functionalization thereof	Advanced Functional Interface Chemistry
○lkeda, Hirokazu	Professor	Effects of flowing environments on the ecology of plants and fish in rivers, lakes, and marshes; added value with environmental information	Advanced Inland Water Environment
⊖Otani, Yukitoshi	Professor	Optical measurement, polarization science, polarization engineering, opto-mechatronics	Advanced Lightwave Sensing
⊖Ozaki, Koichi	Professor	Robot vision, mobile robots, intelligence systems, farming robots, robot design	Advanced Robot Vision
⊖Kato, Norihiro	Professor	Development of functional polymers and environment- responsive polymer gels as well as education and research on their applications to biological engineering	Advanced Material Chemistry for Environmental Response
⊖Sato, Masahide	Professor	Various process controls and optimization involving heat and property transfer at the interfaces between different phases with surface chemistry methods	Advanced Topics in Functional Fluid Processing
⊖Sugihara, Okihiro	Professor	Optical waveguide device using functional materials, optical fiber communication device/system, optical interconnection	Advanced Functional Optical Materials and Devices
⊖Hasegawa, Hiroshi	Professor	Sound signal processing, sound measurement, wave theory and its applications	Advanced Information Analysis in Acoustics
⊖Yamamoto, Hirotsugu	Professor	3D displays, depth perception, information display technology by use of spatio-temporal coding, digital signage	Advanced Optics for Three-Dimensional Imaging and Display
⊖Higashiguchi, Takeshi	Professor	Next-generation semiconductor lithography EUV illuminants, short-wave long lasers, ultra-short-pulsed lasers	Advanced Quantum Electronics
⊖Yugami, Noboru	Professor	Electromagnetic radiation through the interaction between ultra-high-power lasers and plasma.  Development of plasma photonics devices	Advanced Particle Beam Physics and Engineering
⊖Yokota, Kazutaka	Professor	Self-distributed robot systems, rough terrain mobile robots, support and automated product assembly plans	Advanced Mechatronics
⊝Ishikawa, Tomoharu	Associate Professor	Models and applications for multisensory integration, development of information presentation technology applied to diverse senses, realization of pleasant viewing environments	Advanced Combining Sensory Information Processing

### **Advanced Interdisciplinary Science Course**

Name	Title	Research content	Subject taught
Shinoda,Kazuma	Associate Professor	Spectral and polarization imaging, image processing	Advanced Spectral Image Processing
Tamada, Yosuke	Associate Professor	Biological and molecular optics, understanding biological phenomena with bioimaging and optical cell manipulation	Advanced Optical Engineering for Life Science
Ninomiya, Nao	Associate Professor	3D turbulence measurement of thermal and fluid phenomena employing visualization and image processing technologies	Advanced Course for Thermal and Fluid Energy Transfer
Barada, Daisuke	Associate Professor	Vectorial wave holography, optic and mechanical energy transfer, space-time optical signal analysis, general optical coordinates	Advanced Applied Optical Physics
⊝Fujimura, Ryushi	Associate Professor	Development of optical function materials (hologram recording materials, plasmonic metamaterials) and research on next-generation optical memory systems	Advanced Applied Optical Engineering
⊖Furusawa, Takeshi	Associate Professor	A novel catalytic reaction system is proposed based on the knowledge of catalysis and chemical engineering. A highly active catalyst or functional material for energy and environmental processes is also developed.	Advanced Catalysis for Energy and Environmental process
⊖Yoshihara, Sachio	Associate Professor	Atomic level surface control using electrochemical methods and development of new functional materials.	Advanced Course of Applied Electrochemistry
Yoda, Hidehiko	Associate Professor	Development of optical electronic devices and optical thin film devices required for optical communication and optical information processing	Advanced Optical Thin Films
⊖Hayasaki, Yoshio	Professor	Information photonics, computer-generated holography, digital holography, AI optics, volumetric display, computational imaging, and material laser micro-processing	Optical Information System
Nagai, Akira	Professor	Information communication engineering, computational science	Information and Control Systems Science
Matsumoto, Taki	Associate Professor	Liquid phase synthesis of inorganic and inorganic/organic composite materials, creation and increased sophistication of optical functional materials (photocatalysts, coatings, etc.)	Practical Instrumental Analysis
OMiura, Eisuke	Visiting Professor	Application of laser particle acceleration, ultra-short-pulse high-strength lasers, and laser formation plasma  thosen from among any of the above that are marked	Systems Innovation Engineering Special Lecture I