

**Application Guidelines  
for  
Graduate School of Computer Science and  
Systems Engineering (Doctorate Course)  
Okayama Prefectural University  
For  
Fall Enrollment  
of  
the 2021 Academic Year**



The Graduate School of Computer Science and Systems Engineering, Okayama Prefectural University offers master's and doctorate course. These guidelines are for application to the doctorate course. The Doctorate Course of Advanced Systems Engineering offers three majors closely related to the Master's Course of Systems Engineering. The majors provide research and education aiming to cultivate specialists with advanced knowledge as well as a broad range of basic knowledge in the field of computer science and systems engineering. Read the content of each major and submit the required documents by the listed deadlines.

### **Admissions Schedule Overview**

#### **Fall Enrollment**

Items	Schedule/Examination Venue, etc.
Preliminary Consultation for Disabled Applicants	<b>Until Monday, July 19, 2021</b>
Submission of Application for Qualification Screening	<b>Until Monday, July 26, 2021</b> [Applicants falling into Qualification (5) or (6) on page 2]
Interview with the Doctorate Course Director/ Instructor	<b>Until Monday, July 26, 2021</b>
Application Period	<b>From Monday, August 2, 2021 to Friday, August 6, 2021</b>
Examination Date and Venue	<b>Wednesday, August 25, 2021, at Okayama Prefectural University</b>
Announcement of Successful Applicants	<b>Friday, September 3, 2021</b>
Enrollment Procedures	<b>From Thursday, September 9, 2021 to Friday, September 10, 2021</b>
Date of Enrollment	<b>Friday, September 24, 2021</b>

## Table of Contents

<b>I. Admission Policy of the Graduate School of Computer Science and Systems Engineering</b> .....	1
<b>II. Application Guidelines for the Graduate School of Computer Science and Systems Engineering (Doctorate Course), Okayama Prefectural University</b>	
1 Enrollment Capacity .....	2
2 Qualifications for Application .....	2
3 Application Procedures .....	2
4 Examination Schedule .....	6
5 Announcement of Successful Applicants .....	8
6 Enrollment Procedures .....	8
7 First-Year Payment .....	9
8 Degree Areas Written on the Doctor's Diploma .....	11
9 Subject Registration for Adult Students .....	11
10 Other information .....	11
<b>III. Invitation from the Graduate School of Computer Science and Systems Engineering (Doctorate Course), Okayama Prefectural University</b> .....	12
1 Research Instructors and Major Research Themes .....	13
2 Lecture Content .....	16
<b>IV. Map to Examination Venue</b> .....	22
<b>V. Contact Concerning Application</b> .....	23

### <Important Notice>

Due to the COVID-19 pandemic, the schedule and procedures of the entrance examination may change. Please check for the most recent information on the official Okayama Prefectural University website before submitting the application.

### Online Application for the 2021 Academic Year Entrance Examination

Okayama Prefectural University implemented an online application system for the graduate school entrance examination to improve applicant convenience and institutional efficiency.

The online application system enables applicants to apply 24 hours a day during the application period and alleviates the need to request the paper-based Applicant Guidelines.

Please note that some documents such as the Certificate of Graduation (Prospective Graduation) and transcripts will still need to be sent by mail.

Availability of the downloadable Applicant Guidelines for each of the examination categories on the official Okayama Prefectural University website is to be announced.

If you do not have the required Internet environment, please contact the university staff using the contact information shown on page 23 of the Application Guidelines.

## **I. Admission Policy of the Graduate School of Computer Science and Systems Engineering**

The Graduate School of Computer Science and Systems Engineering holds entrance examinations for its master's and doctorate courses for students and working adults both in Japan and overseas to attract qualified individuals who satisfy all the requirements specified by its conferment policy.

### **Admission Policy of the Doctorate Course of Advanced Systems Engineering**

The Doctorate Course in Advanced Systems Engineering cultivates engineers and researchers capable of developing comprehensive and cutting-edge knowledge and technology beyond the boundaries of existing frameworks through the development of theories and technology in their specialized fields, and identifying and finding solutions to new issues to respond to diverse requests from an innovation-oriented society in the future through digital innovation.

This Doctorate Course seeks individuals highly motivated to further their study of theory and technology in the fields of electronics, information and communication engineering, mechanical and information systems engineering, and human information systems engineering, capable of using English to gather and provide information, identifying research themes, and discovering solutions.

This Doctorate Course offers examinations for summer, winter, and fall enrollment as well as for special overseas student enrollment with the hope of attracting qualified individuals, including working adults, from both Japan and abroad.

For summer, winter and fall enrollment, this Course selects candidates through an academic proficiency examination designed to assess knowledge, thinking ability and expression skills in specialized fields, an academic proficiency examination designed to assess foreign language (English) competence, including the ability to gather and provide information using English, and an interview and document screening designed to assess achievement, motivation, independence, cooperativeness, and management skills related to research activities.

For special overseas student enrollment, the Course selects candidates through an interview (including an oral examination for foreign language [English], their specialized fields, master's thesis) and research plans to assess their specialized knowledge, logical thinking, achievements, motivation, independence, cooperativeness, management skills related to research activities, the ability to gather and provide information, and ability to express themselves in a clear and concise manner.

## **II. Application Guidelines of the Graduate School of Computer Science and Systems Engineering (Doctorate Course), Okayama Prefectural University**

### **1. Enrollment Capacity**

**(people)**

Course	Total Capacity	Enrollment Capacity		Examination Date
Doctorate Course of Advanced Systems Engineering	6	Fall Enrollment	Flexible	Wednesday, August 25, 2021

Note: Enrollment capacities include adult and overseas applicants.

### **2. Qualifications for Application**

Applicants must meet one of the following conditions:

- (1) Have or plan to complete a master's or professional degree by September 23, 2021.
- (2) Have or plan to complete the equivalent of a master's or a professional degree from an overseas country by September 23, 2021.
- (3) Have completed a curriculum of school education in an overseas country through correspondence education while in Japan and have or plan to complete the equivalent of a master's or professional degree by September 23, 2021.
- (4) Have completed a curriculum of an overseas educational facility that offers graduate programs in Japan recognized under the relevant overseas country's school education system and designated separately by the Minister of Education, Culture, Sports, Science and Technology, and have or plan to complete the equivalent of a master's or professional degree by September 23, 2021.
- (5) Have been designated by the Minister of Education, Culture, Sports, Science and Technology (Notification of Ministry of Education, No.118 of 1989)
  - 1) Have graduated from a university and engaged in research at a university or a research institution for more than two years, and have been recognized based on their achievements in the relevant research as possessing academic ability equivalent to individuals who have completed a master's degree.
  - 2) Have engaged in research at a university or a research institution for more than two years after completing a 16-year curriculum of school education of an overseas country, or after completing a 16-year curriculum of school education of an overseas country through correspondence education conducted by a relevant overseas school while in Japan, and have been recognized based on their achievements in the relevant research as possessing academic ability equivalent to individuals who have completed a master's degree.
- (6) Have been recognized by the president of Okayama Prefectural University as possessing academic ability equivalent to individuals who have completed a master's or professional degree through individual examination for admission and who are or will have reached the age of 24 by September 23, 2021.

\* Applicants wishing to apply for admission under Qualification (5) or (6) will be screened before application is accepted. (See 3(9) on page 6)

### **3. Application Procedures**

#### **(1) Application**

Please place all the documents required for the application, including those downloaded from the online application system, in a "Kakugata 2-gou" envelope (332mmH x 240mmW) and submit by simple registered express mail.

However, you may bring those documents only on the last day of the Application period,

between 9:00 and 17:00.

Applicants filing from outside of Japan are requested to provide a contact address in Japan to which the entrance examination admission card, letter of acceptance and other documents may be sent. (If no contact address in Japan is listed, the university will send documents to the listed address abroad.)

## (2) Application Period

**From Monday, August 2, 2021 to Friday, August 6, 2021**

(Notes)

Applications arriving after Saturday, August 7 by simplified registered express mail with a postmark\* of Thursday, August 5 or earlier will be accepted.

\*Japanese postmark. Applicants submitting documents from outside of Japan should allow sufficient time for the mail to reach the school by the application deadline.

## (3) Where to send:

Entrance Examination Team, Admissions Service Section  
Okayama Prefectural University  
111 Kuboki, Soja-shi, Okayama Pref. 719-1197

## (4) Application Documents

Please read the Online Application Guidelines (For Graduate Schools) provided separately for more details.

Application Documents Required	Preparation Procedures
① Application Form(Original Form)	After completing the online application, please print out and submit the required documents in accordance with the Online Application Guidelines (For Graduate Schools) provided separately. Write “Preferred Major” with reference to “Overview of Major” on page 15. Write the name of the instructor who interviewed you in the column for the “Instructor of the Doctorate Course You Wish to Enter.”
② Certificate of Graduation (Prospective Graduation)	The certificate must be issued and sealed by the president or the dean of the relevant university. Applicants who have graduated or will graduate from our graduate school are exempt.
③ Transcripts	Transcripts must be issued and sealed by the president or the dean of the relevant university. Submit the transcripts listing grades of all credits obtained while at the university. Applicants falling into Qualification (1), (2), (3), or (4) must submit transcripts of the relevant faculty and graduate school, and applicants falling into Qualification (5) or (6) must submit transcripts of the relevant faculty.

Application Documents Required	Preparation Procedures
④ Resume	<p>Use the form provided.</p> <p>Please download the forms from the official Okayama Prefectural University website.</p> <p>Fill in the relevant column with the preferred major you listed in the application form (original form).</p> <p>Applicants filing from outside of Japan are asked to provide a contact address in Japan as an alternate contact address other than listed above (e.g. an address in their home country).</p>
⑤ Master's Thesis, etc.	<p>a) Applicants who hold a master's degree must submit a copy of their master's thesis or the abstract thereof (within 2,000 words).</p> <p>b) Applicants who will graduate from a master's program and applicants falling into Qualification (5) or (6) must submit a report of research progress or work content (within 2,000 words). Materials regarding research presentations and patents, if any, should also be submitted.</p>
⑥ Research Project Overview	Applicants must describe a field and theme of research that they are interested in working on in the Doctorate Course of Advanced Systems Engineering. (Free Format)
⑦ Application Approval	Applicants who wish to continue working while enrolled in a doctoral course at Okayama Prefectural University must submit approval from the Chief of the relevant division at work. (Free Format)
⑧ Others	Overseas applicants residing in Japan are required to submit a copy of the "certificate of residence" which includes status of residence and period of stay issued by the mayor of the municipal office. Overseas applicants that are not registered residents must submit a copy of the page in their passport that shows their name, birth date and sex.

(Notes)

1. Among the documents required for the application, ④ may be downloaded from the website. Cross out mistakes with a double line and write the correction next to them.
2. Leave the asterisked columns blank.
3. Attach Japanese translations of certificates (except those written in Japanese and English) to the documents required for application.
4. Applicants who wish to have original certificates returned should note this when submitting the application forms. The university will make copies and return original certificates.

**(5) Examination Fee**

① Examination Fee

30,000 yen

② Payment Method

Please submit payment for the examination fee by one of the methods shown below in accordance with the online application procedures.

- (1) At a convenience store
- (2) By credit card
- (3) By ATM (Pay-easy payment)/ Net banking

\* Fees for Various payments shall be borne by the applicant.

**③ Payment Period**

From Monday, August 2, 2021 to Friday, August 6, 2021

**④ Refund of Examination Fee**

The Examination Fee shall not be refunded except in cases ① through ③ described below. The amount of refund shall be equivalent to the amount of the Examination Fee. Refund of Examination Fee is made upon request. Applicants who fall into one of the following categories and who wish a refund are required to contact the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University by Friday, September 10, 2021 to complete the necessary procedures (Examination Fee Payment Certificate is required for the procedure). For Case ②, the Admissions Service Section, Okayama Prefectural University will contact the relevant individual.

(1) Applicants who paid the Examination Fee but did not submit the application documents

(2) Applicants who paid the Examination Fee but whose application was not accepted

(3) Applicants who have mistakenly paid the Examination Fee twice

**⑤ Examination Fee Waiver Program**

A special examination fee exemption is available for those who fall under either ① or ② below.

Individuals applying for this special exemption are advised to contact the Admission Service Section, Okayama Prefectural University before submitting their application.

a. Victims of the Great East Japan Earthquake (2011) or 2018 Japan Floods

\*Visit the official Okayama Prefectural University website for more details.

b. Individuals graduating from Okayama Prefectural University Graduate School (Master'sProgram) and planning to enroll in its Doctoral Program

**(6) Interview with the Doctorate Course Director and Instructor**

To discuss the content of research conducted in Doctorate Course in the Graduate School of Computer Science and Systems Engineering, **make appointments for interviews with the director and instructor of the doctorate course you wish to enter by no later than Monday, July 26, 2021. Applicants are also required to obtain approval from a program advisor before submission.**

The Director of each course is shown below.

Doctorate Course of Advanced Systems Engineering	OZAKI Koichi, Prof.
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See "Research Instructors and Major Research Themes" in page 13-15 to determine an instructor of the doctorate course you wish to enter.

**(7) Preliminary Consultation for Disabled Applicants**

Disabled applicants requiring special consideration while taking the examination or following enrollment are asked to contact the Admissions Service Section, Okayama Prefectural University by Monday, July 19, 2021.

Submit the application after receipt of notice of special measures for examinations and enrollment.

**(8) Notes Regarding Application Procedures**

- ① Ensure that all required documents are included in the application. Incomplete applications cannot be accepted.
- ② Acceptance may be invalidated at any time if any information provided in the application documents is found to have been falsified.
- ③ Changes to applications will not be allowed after submission. In the case of a change of name, address or telephone number, applicants should notify the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University as soon as possible.
- ④ We will send an e-mail to the e-mail address you have registered with our online application system to inform you that you are allowed to print out your Admission Card after the application period. If you do not receive an e-mail by Friday, August 20, 2021, please contact

Okayama Prefectural University Entrance Examination Team, Admissions Service Section.  
 ⑤Application documents will not be returned.  
 ⑥Entrance examination admission cards, acceptance letters, etc. will be sent to the contact address specified by the applicant. Applicants filing from outside Japan are asked to specify a contact address in Japan.

#### **(9) Review of Qualifications for Application**

Applicants wishing to apply for admission under Application Qualification (5) or (6) in 2 are asked to submit the below-listed documents to the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University by no later than Monday, July 26, 2021 for review of the relevant qualification, which must be completed before the application can be accepted. The results of this review will be announced to the applicant. Applicants are also asked to schedule interviews with the director and the instructor of the doctorate course they wish to enter before submitting their application.

Documents Required	Preparation Procedures
①Application Form for Review of Qualification for Application	Use the <u>form provided</u> and fill out completely.
②Certificate of Graduation	Certificate issued and sealed by the last school attended.
③Transcripts	Certificate issued and sealed by the last school attended. Submit the transcripts listing grades of all credits obtained while at the university.
④Statement of research performance	The <u>form provided</u> is used to describe research performance associated with the applicant's major field.
⑤Qualifications/Licenses	Copies of licenses relevant to the applicant's major field that may be useful, and a brief explanation of each.

- (Notes) 1. The “form provided” is not included in these guidelines. Please contact the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University.  
 2. Should the applicant's application qualifications be approved, application document ② and ③ may be omitted.

#### **4. Examination Schedule**

##### **(1) Examination Date and Time Table**

<b>Exam Date</b>	<b>Wednesday, August 25, 2021</b>
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Exam Type	Time
Interview (Based on the applicant's master's thesis and Research Project Overview)	10:00 a.m. to 12:00 a.m.
Academic proficiency Exam • Foreign Language (English) • Special Subject (associated with the preferred major)	1:30 p.m. to 3:30 p.m.

Note: Applicants who missed academic proficiency exam or interview will be excluded as candidates.

- **Selection**

Selection for admission is based on a comprehensive evaluation of the applicant's Research Project Overview and the master's thesis, examination of academic proficiency, and interview.

- **Allocation of Points**

Name of Subject	Points	Total
Academic Proficiency Exam(Foreign Language)	100	300
Academic Proficiency Exam (Special Subject)	100	
Interview / document screening	100	

**(3) Examination Venue (Common)**

Okayama Prefectural University  
111 Kuboki, Soja-shi, Okayama Pref. 719-1197

**(4) Precautions for Examination (Common)**

- ① Applicants should be seated in the designated examination room (or interview waiting room) by 9:45 a.m.  
Room information will be posted at the venue on the day of the examination.
- ② Applicants are permitted to enter the designated academic proficiency examination/interview room up to 30 minutes after the language test/interview has started. However, the examination time will not be extended.
- ③ Applicants are asked to place the Entrance Examination Admission Card (printed out from the online application system) according to the instructions given by proctors. Applicants who have misplaced or forgotten their Entrance Examination Admission Card should obtain a temporary admission card at the Examination Headquarters without delay.  
The entrance examination admission card is necessary for the enrollment procedure. Please keep it even after the examination.
- ④ Entrance Examination Admission Cards must be placed on the desk during the examination. The only other items allowed on desks are pencils (mechanical pencils), an eraser, a pencil cap, a pencil sharpener (electric/battery-powered sharpeners prohibited), a watch (must have a silent second hand), glasses, a handkerchief, tissues (without package), and eye drops. Proctors may confiscate items not listed above until the end of the examination.
- ⑤ Electronic devices, including mobile and smart phones, and wearables, should be turned off before entering the examination room (or interview waiting room). Please ensure that watch alarm functions have been turned off.
- ⑥ Proctors will check applicant. Proctors may ask applicants to temporarily remove masks and hats for identification.
- ⑦ Applicants are prohibited from borrowing any items from other applicants in the examination room (or interview waiting room).
- ⑧ Reading material (textbooks and notes, but excluding electronic books) and beverages are allowed during wait times; however, applicants are required to obtain permission from a proctor before removing reading material or containers from their bags.
- ⑨ Applicants found to be engaging in dishonest behavior will be asked to leave the room. Applicants asked to leave cannot retake any of the examinations, and all examination results will be invalidated.

Dishonest behaviors include those listed below:

- Intentionally providing false information on the Application Form, Entrance Examination Admission Card, or Answer Sheet.
- Cheating on the examination.

- Providing answers to other applicants or helping other applicants to cheat.
- Leaving the examination room with examination questions during the examination period.
- Leaving the examination room with the examination answer sheet during the examination period.
- Opening the examination questions or answering before being told to start answering.
- Using electronic devices, including mobile or smart phones and wearables during the examination period.
- Continuing to write after being told to stop.

Behaviors shown below may be deemed dishonest. Applicants who do not follow instructions or who are deemed to have engaged in dishonest behavior will be treated as above.

- Wear or holding electrical devices, including mobile or smart phones and wearables without permission during the examination period.
- Interfering with others during the examination by, for example, not disabling the sound of mobile phones and watches (ring tone, alarm, vibration, etc.).
- Making false announcements regarding the examination to manipulate the situation to the advantage of themselves or other applicants.
- Engaging in mischievous behavior directed at other applicants at the examination venue.
- Disregarding instructions given by proctors.
- Engaging in behaviors that may undermine the fairness of the examination.

- ⑩ The entrance examination includes a lunch break. The canteen in the Student Union is closed.
- ⑪ In the event of unforeseen circumstances (natural disaster, etc.) that prevent administration of the examination on the predetermined schedule or necessitate emergency contact with applicants, the university will post information on the official Okayama Prefectural University website (see the address shown on the page 23).
- ⑫ Any additional information will be sent to the e-mail address registered with the online application system.

## 5. Announcement of Successful Applicants

### (1) Announcement Date

**10 a.m., Friday, September 3, 2021**

### (2) Announcement Procedures

ID numbers are uploaded to our website (see the address shown on the page 23). In addition, successful applicants will receive an official letter of acceptance. We regret that the school is unable to accept inquiries via telegram, telephone, mail, e-mail, or etc.

## 6. Enrollment Procedures

### (1) Enrollment Steps

Submit the application documents described in paragraph (4) below by simplified registered express mail.

However, you may bring those documents only on the last day of the enrollment procedure period, between 9:00 and 17:00.

## (2) Enrollment Procedure Period

**From Thursday, September 9 2021 to Friday, September 10, 2021**  
**(Due no later than the last day)**

## (3) Where to Complete Enrollment Procedures

Entrance Examination Team, Admissions Service Section  
Okayama Prefectural University  
111 Kuboki, Soja-shi, Okayama Pref. 719-1197

## (4) Documents Required for Enrollment

Documents Required for Enrollment	Preparation Procedures
① Entrance Examination Admission Card	
② Affidavit	Fill out the <u>form provided</u> and affix your seal or signature.
③ Certificate of Residence (Application for Certification)	"Okayama Prefecture Residents" in 7-(1)-① on page 11 are required to submit this certificate. Fill out the <u>form provided</u> (not the form used by the local government) and have it approved by your relevant local government office.
④ Entrance Fee	Applicants are required to remit the amount listed in 7-(1) on page 11. Payment instructions will be enclosed with the letter of acceptance. <b>Applicants who will graduate from a master's course of our university and enroll in our doctorate course are not required to pay the entrance fee.</b>
⑤ 1 photo (For student ID card)	The doctorate course and the applicant's name should be written on the reverse side of a 4cmH x 3cmW color photos (front upper body, no hats, and no background scenery)
⑥ Certificate of Conferment of a Master's Degree	Required for applicants who fall into Qualification (1), (2), (3), or (4) of 2, and take the examination prior to acquiring their master's degree (Applicants who plan to acquire a master's degree from our university are exempt.)

(Notes)

1. The "Form provided" will be enclosed with the letter of acceptance.
2. Certificate of Conferment of a Master's Degree, etc. described in ⑥ are used to verify the applicant's qualification for admission (Application Qualifications (1), (2), (3) or (4) shown in 2). Relevant applicants must submit this by Wednesday, September 22, 2021.

## (5) Enrollment Procedure Precautions

- ① Enrollment procedures must be completed by the specified date. Applicants who fail to complete the procedure by the specified date will be deemed to have declined enrollment.
- ② Incomplete enrollment documents, including examination fee payment certificate, or documents delivered after the enrollment procedure period will not be accepted.
- ③ Enrollment documents will not be returned.
- ④ Applicants who lack the relevant qualifications as of Friday, September 24, 2021.

## 7. First-Year Payment

### (1) Entrance Fee

Payment of the entrance fee is required at the time of enrollment. Instructions will be included with the letter of acceptance.

① Okayama Prefecture Residents      **188,000 yen**  
② Non-residents                        **282,000 yen**

(Notes)

1. Okayama Prefecture Residents are defined as either:
  - ①Individuals residing in Okayama Prefecture since September 1, 2020.
  - ②Individuals whose spouse or first-degree relative has resided in Okayama Prefecture since September 1, 2020.
2. Residency must be verified with a Certificate of Residence issued by the mayor of the relevant local government office.  
Individuals subject to Note 1-② or who have moved within Okayama Prefecture after September 2, 2020 must contact the Entrance Examination Team, Admission Service Section, Okayama Prefectural University to submit additional documents.
3. Admission fee is subject to change. Revised admission fees shall apply from the date of revision.
4. Entrance fees shall not be refunded except in cases ① through ③ described below. The amount of refund shall be equivalent to the amount of the entrance fee. Refund of the entrance fee is made upon request. Individuals who fall into one of the following categories and wish a refund are asked to contact the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University by Thursday, September 16, 2021 to complete the required procedures (Entrance Fee Payment Certificate is required). For Case ②, the Entrance Examination Team, Admissions Service Section, Okayama Prefectural University will contact the relevant individual.
  - ①Applicants who paid the entrance fees but did not submit the enrollment documents
  - ②Applicants who paid the entrance fees but did not complete the enrollment procedures
  - ③Applicants who mistakenly paid the wrong amount for the entrance fee

**(2) Tuition**

①Amount (Yearly amount)	<b>535,800 yen</b>
① Payment Procedures	Payment in two installments for the first and second semesters after enrollment
③Payment Period	1 <sup>st</sup> semester; the end of July / 2 <sup>nd</sup> semester; the end of Nov.

(Note) The tuition is paid by account transfer. Please follow the necessary procedures at the time of enrollment. Tuition paid will not be refunded. Tuition is subject to change. Revised tuition shall apply from the date of revision.

**(3) Supporter's Association Fee**

①Amount	56,000 yen (20,000 yen for registration fee and 36,000 yen for membership fee (for three years)) (Note) Graduates (and prospective graduate students) from our university and graduate school need not pay registration, but are required to pay the membership fee (for three years).
②Payment Procedures	Please pay the above-mentioned amount in a lump sum by bank transfer at the time of enrollment. The amount is refundable if enrollment is declined.

**(4) Alumni Association Fee**

①Amount	10,000 yen (Registration) (Note) Graduates (and prospective graduate students) from our university and graduate school need not pay the alumni association fee.
②Payment Procedures	Please pay the above-mentioned amount in a lump sum by bank transfer at the time of enrollment. The amount is refundable if enrollment is declined.

(Note) Applicants will receive bills for the supporter's association and alumni association fees along with their letter of acceptance.

## **8. Degree Areas Written on the Doctor's Diploma**

Upon satisfactory completion of the requirements for graduation from the Graduate School of Computer Science and Systems Engineering at Okayama Prefectural University, students are awarded a doctor's degree. The degree area written on the doctor's diploma is "**Engineering**".

## **9. Subject Registration for Adult Students**

In compliance with Article 15 of the Graduate Schools Establishment Standard (Ministry of Education Ordinance No. 28 of 1974), the university has established a "Register Extension System" that allows students to extend their studies for a specified period beyond the standard course term in order to cope with the difficulties often faced by working adults. Those who wish to take advantage of the Register Extension System must apply for approval from the university. After approval has been granted, however, students are not able to extend the specified period, withdraw from the system, or apply for a reduction/ exemption of tuition, or delay of payment. Applicants are, therefore, strongly advised to consult with a faculty instructor before applying for the Register Extension System.

## **10. Other information**

- (1) Consultation and advice on scholarships and tuition exemptions are available following enrollment. Please contact the Student Support Team, Admission Service Section, Okayama Prefectural University.
- (2) The handling of personal information provided by applicants during the selection process is subject to the Okayama Prefecture Privacy Protection Ordinance (No. 3 of Okayama Prefecture Ordinance 2002). Personal information provided by applicants is used as follows:
  - ①Personal information provided by applicants during the application process is used to facilitate the selection process (application processing, screening), announcement of successful applicants, and enrollment procedures. In addition, personal information is used to examine and improve the selection process and program offerings. However, all information presented in explanations or support of said examination or improvements will be processed to prevent the identification of individuals.
  - ②Personal information provided during the enrollment process is used to facilitate admission and study (school registration, study guidance, etc.), student support (health care, applications for tuition reduction and exemptions, applications for scholarships, assistance in job searches, etc.), and the collection of fees.
  - ③Personal information provided by applicants who have passed the entrance examination is used by the alumni and supporters' associations to provide information related to their official activities.
  - ④A part of the above-listed duties may be entrusted to subcontractors. To ensure that said subcontractors are able to fulfill their duties, they are provided with personal information to the extent required.

## I. Invitation from the Graduate School of Computer Science and Systems Engineering(Doctorate Course), Okayama Prefectural University

Highly-advanced information society is an integration of information processing and telecommunication technology. Informatization makes it possible for a society to share and reuse knowledge and contribute it to the growth of a wide range of fields, including industry, administration, economy, and culture. Intelligence technology is applied to install intelligent ability close to humans into computers, and such technology is contributing significantly to the advancement of industry and society. In order to respond appropriately to the diverse needs of society as it grows increasingly complex along with the progress of informatization, it is necessary to vigorously promote the development of systems and their elements as well as unification and intelligence technology from a new perspective based on informatization.

Three majors offered in the Doctorate Course of Advanced Systems Engineering provide research and education based on the application of computers to a wide range of fields.

### Composition of Major & Content of Research and Education

#### **[Electronics, Information and Communication Engineering Major]**

Information processing and telecommunications, and electronic device technology are the fundamentals that support the advancement of information society. The Electronics, Information and Communication Engineering provides research and education regarding the foundation and application of optical light and electromagnetic waves, telecommunication network technology, information signal encoding, semiconductor technology and the development and application of photonic and electronic devices for management science, mathematical analysis of management information, knowledge databases for massive amounts of information, high-speed and spreading bandwidth of information telecommunications, and diverse usage.

#### **[Mechanical and Information Systems Engineering Major]**

Advancement of machine and processing technology in information society is closely related to the progress of intelligent technology and unification. The Mechanical and Information Systems Engineering provides research and education in the advancement of intelligent processing by computers and application to machine and processing control, human interface with mechanical systems, modeling and simulation of materials, movement and energy, information processing in design, and optimization and evaluation of machine and processing systems to promote intelligent technology in machine and processing systems, and the unification of design and production processes.

#### **[Human Information Systems Engineering Major]**

It is important to have a human-centered design concept, which matches human characteristics, in the design and development of machines and systems used in living environments. The Human Information Engineering helps students to analyze and understand human characteristics from the viewpoint of physical exercise, movement, behavior, and cognitive function, and provides research and education in engineering and technological development based on human-centered design and thought through the evaluation of compatibility between humans and machines.

## 1. Research Instructors and Major Research Theme

### FY2021 Faculty Members

Major	Title	Name	Specialty	Research Content
Electronics, Information and Communication Engineering	Prof.	KANAGAWA Akihiro	Information and Mathematical sciences/ Management Sciences/ OR	(1) Neural networks and discriminant function analysis (2) Information statistics and application to industrial management (3) Combinatorial optimization problems and metaheuristics
		IWAHASHI Naoto	Intelligent Robotics/ Machine Learning	(1) Multimodal dialogue ability learning by robots (2) Human-robot interaction (3) Object concept learning
		SAKAKIBARA Katsumi	Communication and Network Engineering	(1) Algebraic error correcting coding theory (2) Error control protocols for communication systems (3) Random access protocols for mobile/wireless communication systems
		OKUBO Kensuke	Microwave and Millimeter wave Engineering	(1) Analysis of electromagnetic waves transmitting through microwave circuits, including magnetic substances (2) Microwave and millimeter wave circuit and device using magnetic material and metamaterial (3) High-frequency integrated circuits for mobile telecommunication
		INAI Hiroshi	Communication and Network Engineering	(1) Prediction of telecommunication system performance (2) High-speed, large-scale information network design (3) Distributed computing through information networks
		ITO Nobuyuki	Analog Integrated Circuit/ Device Modeling	(1) High-frequency analog integrated circuits (2) High-frequency device modeling (3) High-frequency integrated circuits for wireless telecommunication
		SUEOKA Koji	Applied Physics and Crystal Engineering	(1) LSI semiconductor substrates utilizing molecular simulation (2) Search for new materials through first- principles calculation (3) Fundamental research on physics of semiconductor surfaces and interface
	Associate Prof.	WAKABAYASHI Hideaki	Electromagnetic Theory/ Optical and Electromagnetic Wave Engineering	(1) A fundamental study of analytical theory and computational method for electromagnetic scattering and diffraction problems (2) A study on clarification and application of light and electromagnetic waves phenomenon caused by periodic and metamaterial structures

Major	Title	Name	Specialty	Research Content
Electronics, Information and Communication Engineering	Associate Prof.	FUKUSHIMA Takehiro	Applied Optics/ Quantum Optical Engineering	(1) Two-dimensional microcavity lasers (2) Laser chaos and its applications (3) Semiconductor lasers and related devices
		TAKIMOTO Hironori	Perceptual Information Processing, Image Engineering	(1) Modeling of perceptual information processing (2) Advancement of human sensing (3) Development of image processing technology based on visual and perceptual characteristics
Mechanical and Information Systems Engineering	Prof.	XIN Xin	Robotics/ Control Engineering	(1) Design and analysis of underactuated robotics control systems (2) Stability analysis and control design for electric power systems (3) Analysis and control of complex systems
		OZAKI Koichi	Mechanics of Materials/ Thermal Engineering	(1) Thermal and mechanical properties of porous medium and their application (2) Analysis of casting processes utilizing numerical simulations (3) Light metal strength properties
		TSUMAYA Akira	Design Engineering/ Manufacturing Systems	(1) Methodology for upper stage of design (2) Flexible and resilient supply chain (3) Management and usage of design/ manufacturing/ operation information
	Associate Prof.	FUKUTA Tadao	Materials Processing Engineering/ Computational Dynamics	(1) Strength property evaluation for heat- processed materials (2) Clarification of material strengthening mechanisms utilizing molecular simulations (3) Strength properties of cast light metals
		ISHII Yutaka	Human Interface	(1) Communication support via Embodied avatars (2) Human agent interactions
		TOKUNAGA Yoshitaka	Electrical Engineering	(1) Estimation with analytical model of electric power equipment (2) Electrical characteristics of home appliances
Human Information Systems Engineering	Prof.	SATO Yoichiro	Computer Engineering/ Image Engineering	(1) High performance and reliability of large- scale digital systems (2) High-functional image processing accelerators (3) High performance of medical equipment (4) High-speed conversion methods for high- resolution moving images
		HARUKI Naoto	Heat Transfer Engineering	(1) Heat energy transport technology with high efficiency & low environmental load (2) Heat storage and radiation technology for comfortable spaces

Major	Title	Name	Specialty	Research Content
Human Information Systems Engineering	Prof.	HOKARI Masaki	Instrumentation Engineering/ Sports Engineering	(1) Sports exercise measurement and quantitative evaluation of skills (2) Home security systems
		AYABE Makoto	Applied Health Science/Exercise Physiology	(1) Safe and effective physical exercise (2) Quantitative methods for the activities of daily life (3) Equipment contributing to the realization of comfortable physical movement
		ITO Teruaki	Kansei Information Engineering, Collaborative Engineering	(1) Human interface using kansei information (2) Collaborative support for harmonizing users and systems
		YAMAUCHI Hitoshi	Image Engineering	(1) Object and motion recognition from image information (2) Image data processing
		SAITO Seiji	Human Engineering/ Exercise Physiology	(1) Study of shoes functionality with reference to usability (2) Study of influence of shoe bottom wearing and measuring method (3) Extracting characteristics for gait identification

## 2.Lecture Content

### FY2021 preliminary curriculum

Major	Instructors	Name of Class	Lecture Content
Common to All Majors	Faculty Advisors	Advanced Research in Systems Engineering	This class provides students opportunities to develop research planning and comprehensive evaluation abilities required for independent researchers through discussions with their advisors.
	Full-time Instructors	Advanced Seminar in Systems Engineering	This class provides students opportunities to engage in surveys of the most advanced research regarding their individual themes and related fields, to participate in academic conferences, to have interactions with public research organizations, private companies and other research institutions, and to give presentations and hold discussions about results through seminars to cultivate the ability to plan and execute research.
Electronics, Information and Communication Engineering Major	Prof. KANAGAWA Akihiro	Management Information Engineering , Advanced	This class provides information on the most recent progress in operations research, management technology and reliability engineering as applied to mathematical methods. It also teaches associations with artificial life methods such as fuzzy logic in artificial intelligence (AI), neural networks, and genetic algorithms.
	Associate Prof. TAKIMOTO Hironori	Advanced Information Processing of Human Perception	People acquire information using their senses and perception. This class focuses on visual information processing to help students understand visual mechanisms and information processing in visual systems. The class also explains the advanced knowledge of human sensing technology using various sensors as a human-centered sensing technology. In addition, students investigate, present, and discuss the latest research in related fields by themselves.
	Prof. IWAHASHI Naoto	Intelligent Robotics	Artificial intelligence techniques have been rapidly making progress based on the development of computational algorithms and the performance improvement of computers in recent years. This class focuses on a wide range of machine learning methods, which enable robots to learn to communicate with users from scratch through verbal and behavioral interaction in the physical world.
	(To be determined)	Knowledge Data Engineering	Along with the spread of the Internet and websites, scientific, government and public organizations have started disclosing linked open data (LOD). LOD is essentially linked data, and it is necessary to have higher data processing technology than existing databases to create new value from LOD. This class provides students opportunities to learn about structured documents, semantic web, and processing technology, and gain practice through the actual utilization of disclosed LOD.
	Prof. SAKAKIBARA Katsumi	Theory of Digital Communication Systems	This class focuses on a wide range of digital modulation and demodulation schemes, methods for the analysis of code error rate characteristics in Gaussian noise and fading channels, diverse technology to improve communication quality, and automatic equalizing technology as component technology essential for next generation digital mobile communication systems.

Major	Instructors	Name of Class	Lecture Content
Electronics, Information and Communication Engineering Major	Prof. OKUBO Kensuke	Advanced Electromagnetic- wave Engineering	This class helps students learn artificial medium such as left-handed medium or meta-material, which have been actively surveyed, the characteristics of electromagnetic waves that transmit these medium, and application to microwaves and millimeter wave.
	Associate Prof. KISHIHARA Mitsuyoshi	Guided Wave Electromagnetics	This class focuses on optical fiber and dielectric waveguides, which are basic waveguides for information transmission technology, and mathematical methods for the handling of guided waves from the viewpoint of field theory. This class also helps students learn mode-matching techniques that can be applied to general guided electromagnetic wave problems, and mathematical analysis methods such as the finite element method used in computers, as well as electromagnetic wave transmission in periodic structures and waveguides using new anisotropic materials in consideration of recent research results.
	Prof. INAI Hiroshi	Telecommunication Networks	This class provides students with an overview of technical research in information telecommunications. Students then learn telecommunication systems and protocols through actual examples. Students also learn to apply queuing theory, which is used in performance evaluation for a wide range of systems, to telecommunication performance, and learn trends in telecommunication systems and image compression technology.
	Associate Prof. WAKABAYASHI Hideaki	Light and Electromagnetic Waves Theory	Issues with diffusion and diffraction by media with a periodic structure are old, but new in the fields of optical and electromagnetic wave engineering. This class focuses on diffraction grating, which are periodic-structured media, to explain disadvantages of and improvements to analytical methods. In addition, the class covers formulas for propagating and evanescent waves, and methods of expressing colors produced by the reflection and transmission of light waves.
	Prof. ITO Nobuyuki	Advanced Electronic and Information Circuits	Wireless communication devices now employ system-on-chip technology integrated into silicon semiconductors. This class helps students learn the systems, specifications, and architectures of the RF part, which is the front end of wireless communication devices, and basic technology required for each electronic circuit on silicon semiconductors.
	Associate Prof. MORISHITA Takayuki	Very Large Scale Integrated Circuits Engineering	This class provides students opportunities to learn about very large integrated circuits (VLSI), the core of computers and other electronic systems, design methods and construction techniques. Thus class places a particular focus on integration technique trends in tera-scale architecture and future tasks.
	Associate Prof. FUKUSHIMA Takehiro	Advanced optical device theory	This class provides students opportunities to learn methods of improving the performance of semiconductor lasers and related optical devices that play important roles as light sources for optical communication systems and information processing devices. Specifically, this class focuses on methods of shortening the light wavelength, increasing the output power of semiconductor lasers, improving the output beam characteristics of semiconductor lasers, and applying of nonlinear optical effects to optical devices.

Major	Instructors	Name of Class	Lecture Content
Electronics, Information and Communication Engineering Major	Prof. SUEOKA Koji	Semiconductor Science and Engineering	This class focuses on the history of development and the most recent topics related to semiconductor materials. Specifically, this class helps students learn new semiconductor device principles and materials to further improve performance and lower energy consumption while clarifying technical issues to be solved. It also provides information on the history and problems of silicon-based solar cell development.
Mechanical and Information Systems Engineering Major	Prof. KOMATSU Hiroaki	Topics in Applied Algebra	This class helps students learn Garois field theory and effective calculation methods for polynomial ideals to be applied to preventing errors in algebraic computation in consideration of application to mathematical processing and coding theory.
	Associate Prof. MITANI Kenichi	Topics in Applied Analysis	This class introduces mathematical theories regarding functional analysis methods for signal and image processing, and pattern recognition. It also helps students learn basic and applied Hilbert space theory, which is necessary for functional analysis.
	Associate Prof. TAJIMA Yasuhiro	Theoretical Computer Science	This class helps students learn complexity theory as a means of examining the efficiency of computation, and computational theory as a means of examining the potential of calculation utilizing variations such as approximation algorithms, random algorithms, and quantum calculations.
	Associate Prof. ICHIKAWA Masami	Supporting Study for Systems Development	Maintaining the reliability and stability of systems, and selecting or establishing the best systems for each purpose provided are important issues in system design, and we often encounter such tasks, which are called inverse problems. This class helps students learn the formulation of inverse problems and numerical solutions utilizing pseudo-inverse and singular value analysis.
	Prof. ARIMOTO Kazutami	High Performance Computing	This class helps students understand computing in the big data era, an era in which the amount of data is expanding at an increasing speed, a phenomenon known as the information explosion. The class focuses on basic components such as grid computing (cloud computing), energy saving schemes, data management, and service configuration, and introduces movements in technological innovation taking account of the future application of cyber physical systems.
	Specially- appointed Professor WATANABE Tomio	Human Interaction	This class provides students opportunities to learn methods that promote human interactions via information equipment, and support communication. It places a particular focus on the importance of implementing paralanguages, embodied movements, and physiological indices in a wide range of interactions from the initial stage in development to adulthood, and application to human interface.
	Associate Prof. ISHII Yutaka	Advanced Human Agent Interaction	Technology that enables the application of principles and methodologies for the design of interactions among human communication to human-personified agent and human-robot interactions has advanced. This class covers user characteristics, technology that controls human movement inconsideration of conditions, interaction assessments, etc., including discussions on future technological expansion and usage among students using the most recent research and movements.

Major	Instructors	Name of Class	Lecture Content
Mechanical and Information Systems Engineering Major	Prof. XIN Xin	Informatic Control Engineering	<p>There are uncertainties in complex systems comprising many elements. Therefore, there are always errors between the model subject used at the setup of control systems and the actual systems. Recently, robust control theory, which guarantees effective control function regardless of errors in modeling, has developed significantly to enable high-performance control in application to actual systems. This class helps students understand modeling methods focusing on the dynamic mutual relationship between individual elements and the actual complex systems, and presents robust control system design methods with actual examples of application.</p>
	Associate Prof. YAMASAKI Taiga	Advanced Biological Motor Control	<p>Developing the robotic systems that interpret task instructions, plan their motion, and control their body have close relationships with understanding the motor control mechanisms underlying human and other biological systems by engineering approaches. This class focuses on the recent advances in computational theories to understanding the motor control mechanisms of human and other biological systems.</p>
	Prof. OZAKI Koichi	Numerical Analysis of Materials Processing	<p>Material forming processes must be high quality, high yield, and low cost, and application of numerical simulations have been advanced to meet these needs. This class provides students opportunities to learn numerical simulations regarding forming processes of metal materials often used in industrial products, including the most recent research results.</p>
	Associate Prof. FUKUTA Tadao	Advanced Engineering Materials	<p>It is necessary to select materials that can fully enable the performance and function of the machines to be designed and produced. This class helps students learn basic knowledge related to mechanical material characteristics from the viewpoint of material strength and fracture, and fracture mechanics, including the most recent research results and practical knowledge.</p>
	Associate Prof. TOKUNAGA Yoshitaka	Advanced Electric Power System Engineering	<p>This class helps students understand the influence of electric equipment behaviors on power systems in relation to the basic characteristics of the equipment and operations of the systems.</p>
	Prof. TSUMAYA Akira	Value Design Theory	<p>Modern society is undergoing paradigm shift due to more serious global environmental problems and/or changing consideration of value accompanied by saturation of products. This class provides students methods/ methodologies for value creation of artifact systems including both products and services. In addition, the new concepts for design and development such as ecosystem and time axis design are discussed.</p>

Major	Instructors	Name of Class	Lecture Content
Human Information Systems Engineering Major	Prof. SATO Yoichiro	Distributed Autonomous Cooperative	A wide range of digital systems, from small scale (CPU) to large scale (super computers), at present consists of many elements such as calculation cores, memories, and peripheral equipment. These systems realize extremely high performance by the autonomous operation of each element in concert with other elements. This class helps students learn the construction of system buses, which are important elements for the realization of cooperative behaviors of distributed elements, performance evaluation from a statistical standpoint, and improvement of reliability from the viewpoint of malfunction prevention.
	Prof. YAMAUCHI Hitoshi	Applied Information Systems for Human Activity	Highly-advanced information systems are essential to modern society. This class is designed to familiarize students with the effects and influences of information and communication technology. Sensing technology must ensure compliance with privacy policy. This class provides students with the opportunity to discuss system establishment in reference to social impact.
	Prof. SAITO Seiji	Welfare Human Engineering	Human engineering plays a significant role in the welfare of individuals with physical disabilities. This class is designed to familiarize students with the characteristics of physically disabled individuals, and human engineering approaches to improve QOL. The goal of this class is to increase student ability to make proposals for product design.
	Prof. AYABE Makoto	Exercise Physiology	Exercise physiology is concerned with the control of movement and physical response. This field of study is categorized into anatomy and physiology, and expands into human and biomedical engineering, rehabilitation medicine, and health science. Class content focuses on cardiorespiratory function triggered by the contraction of skeletal muscle, as well as the application of energy metabolism. The class familiarizes students with the mechanisms of general symptoms at the cellular level.
	Prof. ITO Teruaki	Advanced Collaborative Engineering	Along with the diversification and complication of recent society, the necessity of gathering wisdom among people with different knowledge and experience to solve problems cooperatively has become increasing. Collaborative engineering started as the supporting technology for collaborative activities for product development. However, in the midst of rapid expansion of a super-smart society using the IoT, which is called the Society 5.0, collaborative engineering has become necessary for supporting collaborative activities among humans beyond the boundary of product development. This class explains about collaborative engineering from the viewpoint of Society 5.0 and collaborative engineering technology to support a super-smart society using a wide range of cases that applied collaborative engineering.
	Prof. HARUKI Naoto	Advanced Thermal Energy Engineering	Efficient use of thermal energy contributes to the realization of comfortable living environments. This class familiarizes students with the use of a wide range of practical thermal energy focusing on heat storage and transport technology, including current and innovative usage. In addition, students discuss the influence of heat storage and transport technology on future lifestyles.

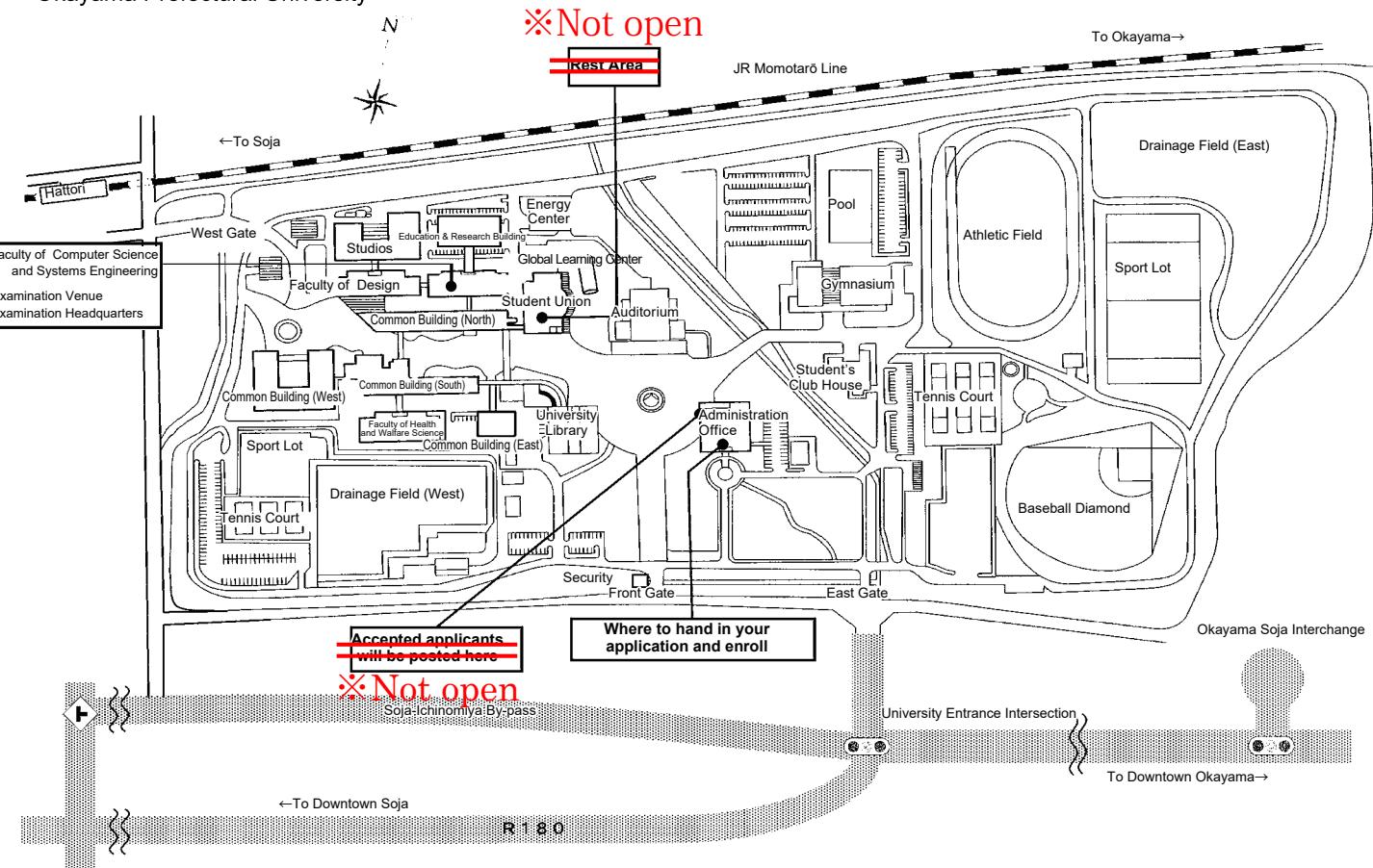
Major	Instructors	Name of Class	Lecture Content
Human Information Systems Engineering Major	Prof. HOKARI Masaki	Advanced System Engineering	Adaptive systems are defined as the systems that process automatically and appropriately in accordance with changes in the environment and conditions. This class helps students learn about adaptive filters used for noise elimination, extraction of weak signals, and prediction of future data in measurement and signal processing, and neural networks used for pattern classification and non-linear signal processing, including study cases in the field.

**To graduate from the Doctorate Course, Graduate School of Computer Science and Systems Engineering, students must meet all of the following requirements:**

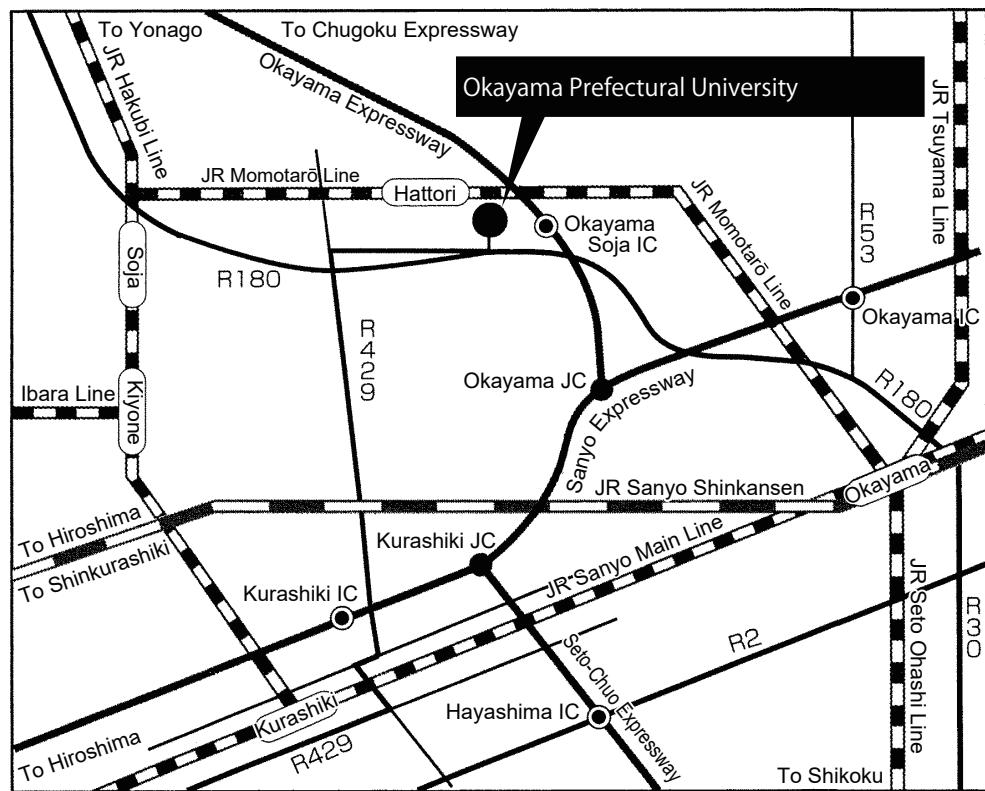
1. Attend the school for at least three years. Those who have achieved excellent academic achievement are, however, only required to attend the school for one year.
2. Earn at least 12 units including 4 units in Advanced Research in Systems Engineering and 4 units in Advanced Seminar in Systems Engineering (8 units in total).
3. Submit a doctor's thesis prepared under the guidance of the faculty advisor in charge while in school and pass the review and final examination.

## IV. Map to Examination Venue Okayama Prefectural University

※NO SMOKING ALLOWED ON THE CAMPUS



### ■ Examination Venue Guide



### 〈Transport〉

A 5 minute walk from JR Momotarō Line Hattori Station(takes approximately 30 minutes from JR Okayama Station and 8 minutes from JR Soja Station)  
 Approximately 2.5km from the Okayama Expressway, Okayama Soja Interchange.  
 Approximately 18km from the center of Okayama city (via Route180) and 12km from the center of Kurashiki city (via Route 429).

## **V.Contact Concerning Application**

Admissions Service Section

Okayama Prefectural University

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