# PROSPECTUS FOR THE DOCTORAL PROGRAM

Graduate School of Engineering KOBE UNIVERSITY
Round 2, 2026
(Starting in October, 2026)

### **About Kobe University Graduate School of Engineering**

Kobe University Graduate School of Engineering was established in April 2007 in the wake of the reorganization of the Graduate School of Natural Science. Both the Master's and Doctoral Programs of the Graduate School of Engineering consist of the following five departments: Architecture, Civil Engineering, Electrical and Electronic Engineering, Mechanical Engineering, and Chemical Science and Engineering.

A Doctoral Degree, either a Doctor of Philosophy in Engineering or a Doctor of Philosophy, will be granted upon completion of the Doctoral Program of the Graduate School of Engineering.

#### Admission Policy of Kobe University Graduate School of Engineering

Engineering refers to an academic discipline dedicated to developing an understanding of nature to serve humanity, pursuing the principles of nature to solve social issues, and building a sustainable society in which people can live in harmony with nature.

The Graduate School of Engineering promotes fundamental scientific research, engages in applied research that contributes to society, and conducts research and education to develop individuals who can demonstrate advanced and broad knowledge, extensive creativity, high ethical standards, and global mindedness. The Graduate School is committed to enrolling students from a wide range of backgrounds, including people who have conducted and published research at a company, laboratory, or the like, and international students.

The Graduate School of Engineering welcomes applications from those who meet the criteria below, in addition to the criteria set forth in the Admission Policy of Kobe University.

#### **Doctoral Program**

- Applicants are sought with the following qualities and abilities:
  - 1. Students who show enthusiasm for identifying the principles underlying natural phenomena and possess the potential to contribute to human society through science and technology. [Required competences: critical thinking, good judgement, expression, interest, and motivation]
  - 2. Students who possess high ethical standards and is able to consider the impact of science and technology on human society.
    - [Required competences: critical thinking, good judgement, expression, interest, and motivation]
  - 3. Students who derive satisfaction from identifying novel challenges and finding creative solutions.
    - [Required competences: critical thinking, good judgement, expression, interest, and motivation]
  - 4. Students who use their international experience to increase their cultural awareness, particularly with respect to the potential applications of their research.
    - [Required competences: critical thinking, good judgement, expression, initiative, cooperativeness, interest, and motivation]
  - 5. Students who demonstrate a passion for acquiring advanced and specialized academic knowledge and capabilities in order to conduct cutting-edge research.
    - [Required competences: knowledge, technique, critical thinking, good judgement, expression, interest, and motivation]

### • Basic Policy for the Selection of Students:

In order to select students demonstrating the qualities above, in line with the Diploma Policy and Curriculum Policy of the Doctoral Program of the Graduate School of Engineering, the Graduate School assesses various competences in the entrance examination below.

General entrance examination is designed to assess knowledge, technique, critical thinking, good judgement, expression, initiative, cooperativeness, interest, and motivation.

(Admissions enquiries for the Doctoral Program of the Graduate School of Engineering)

Kobe University Graduate School of Engineering, Academic Affairs Section 1-1, Rokkodai-cho, Nada-ku, Kobe 657-8501

Tel: +81(0)78-803-6350

e-mail: eng-kyomugakusei@office.kobe-u.ac.jp

Graduate School of Engineering Website: <a href="http://www.eng.kobe-u.ac.jp/">http://www.eng.kobe-u.ac.jp/</a>

Kobe University Website: <a href="https://www.kobe-u.ac.jp/">https://www.kobe-u.ac.jp/</a>

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(Note)

All dates and times listed in this Application Guide are in Japan time.

I The Doctoral Program of the Graduate School of Engineering General Admission Guidelines

# 2026 October (Round2) Kobe University Graduate School of Engineering, the Doctoral Program Application Guidelines

# 1. Departments and the Number of Students to be Accepted

Department	No. of Students
Architecture	A few
Civil Engineering	A few
Electrical and Electronic Engineering	A few
Mechanical Engineering	A few
Chemical Science and Engineering	A few
Total	A few

(Note) The number of students to be accepted includes students who go on to a doctoral program from our master's courses, foreign students and students entering from the workforce.

## 2. Qualification for Applicants

Applicants must currently meet one of the following requirements or be eligible to meet one of these requirements by September 30, 2026.

Those who meet one of the following requirements are the eligible.

- (1) Those who have obtained a master's degree or a professional degree
- (2) Those who have obtained a degree equivalent to a master's degree or a professional degree in a foreign country
- (3) Those living in Japan who have completed a correspondence course in a foreign-affiliated educational institution and obtained a degree equivalent to a master's degree or a professional degree
- (4) Those who have completed their education in a foreign-affiliated university within a school educational system of a foreign country in Japan and designated by the Minister of Education, Culture, Sports, Science and Technology, limited to those who have obtained a degree equivalent to a master's degree or a professional degree
- (5) Those who have been conferred, a degree equivalent to a master's degree from the United Nations University which was promulgated by the General Assembly of the United Nations on December 11, 1972 and in accordance with the Agreement between Japan and the United Nations concerning the Act on Special Measures Incident to Enforcement of the Agreement between the United Nations and Japan regarding the Headquarters of the United Nations University (1976, Resolution 72, Article 1, Item 2)
- (6) Those who have completed the curricula at a foreign university, an educational institution which is designated under Item 4, or the United Nations University and are recognized as having academic abilities equivalent or superior to those given a master's degree by passing the examination and screening which are equivalent to of the ones stipulated in Article 16, paragraph (2) of the Standards for Establishment of Graduate Schools (under Minister of Education, Culture, Sports, Science and Technology Ordinance No. 28, 1974).
- (7) Those who are approved by the Minister of Education, Culture, Sports, Science and Technology (under Minister of Education, Culture, Sports, Science and Technology Public Notice No. 118, 1989).
- (8) Those who are 24 years of age or older and are recognized by Eligibility Screening as having academic abilities equivalent or superior to those given a master's degree or a professional degree
  - [Note] Those who intend to apply under the requirement (7) or (8) above should refer to "8. Eligibility Screening" because they are subject to screening prior to their applications.

#### 3. Application Period and Procedures

Please follow the procedures in the order of [1] and [2] below.

[1] Application registration and payment of the application fee on the Online Application website

Online Application website: <a href="https://e-apply.jp/ds/kobe-u/">https://e-apply.jp/ds/kobe-u/</a>

Period for application registration and payment of the application fee: Monday, December 22, 2025 at 12:00 a.m. to Friday, January 9, 2026 at 4:59 p.m.

Application registration and payment of the application fee are available on the web page of the Graduate School of Engineering.

(https://www.eng.kobe-u.ac.jp/examinee/doctor 202601.html)

Please refer to the "Online Application Procedure" and "Online Application Site Entry Guide" posted on the Graduate School of Engineering web page to register your application and pay the application fee.

Follow the instructions on the Online Application website to register your application information, and upload the documents that are marked with " $\checkmark$ " in the "Procedures on the Online Application website" column in the "List of Application Documents" on the next page. (If not specified, please upload in PDF format.)

If you have any problems in accessing the Online Application website, please contact the Academic Affairs Section of the Graduate School of Engineering.

### [2] Submission of Application Documents

Documents marked with "\( \sigma \)" in the "Hard copy submission" column in the "List of Application Documents" on the next page must be submitted by mail or brought to the application counter during the application period.

Send or submit application documents to:

Academic Affairs Section Graduate School of Engineering Kobe University 1-1 Rokkodai-cho, Nada-ku, Kobe 657-8501, Japan Tel: +81(0)78-803-6350

≪Bv mail≫

Application period: Tuesday, January 6 to Friday, January 9, 2026 (Must arrive by 5:00 p.m.)

- After completing the application registration and payment of the application fee on the Online Application website, print out in color the "Address Label for Application" on page 3 of the "Application Form" displayed on the My Page of the Online Application website, paste it onto a square 2-size envelope and enclose the hard copy documents listed in the "List of Application Documents".
- •Please send by registered express mail.

≪ If you bring your application to the counter ≫

Application period: Tuesday, January 6 to Friday, January 9, 2026

Hours: 9:30 a.m. to 4:00 p.m.

(Except Saturdays, Sundays, holidays and from noon to 1:00 p.m. on weekdays)

After completing the application registration and payment of the application fee, please print out the "Address Label for Application" on page 3 of the "Application Form" displayed on the My Page of the Online Application website, and submit it together with the hard copy documents listed in the "List of Application Documents".

List of Application Documents

List o	List of Application Documents							
Aŗ	oplication Documents	Required for the following applicants	Procedures on the Online Application website	Hard copy submission	Notes			
(A)	Photograph data	All Applicants	•		Please upload photograph data according to the instructions on the Online Application website. The photo must be taken within three months prior to application, showing a front view of your upper body, without a hat and with a plain background. Accepted file formats are JPEG, PNG, BMP or HEIC. The uploaded photo will be used on your ID for the examination, and identity verification will be conducted at the time of the examination. If the photo has been altered or edited to the extent that it is difficult to confirm that it is a photo of you, you may not be allowed to continue with the examination. In addition, the photograph data you uploaded will also be used as the photo for your student ID card.			
(B)	Certificate of (prospective) graduation of a master's degree program of graduate school (master's course)	Applicants applying under Eligibility Criteria (1), (2), (3), (4), or (5)	_	<b>√</b>	If the graduation certificate indicated above does not show the degree you obtained, please submit a certificate of degree as well. Not required if the applicants are currently enrolled in the Graduate School of Engineering of Kobe University as non-degree seeking research students.			
(C)	Academic transcript	Applicants applying under Eligibility Criteria (1), (2), (3), (4), or (5)	_	✓	Academic performance record created by the head of department or the principal of the graduate school you graduated from.Not required if the applicants are currently enrolled in the Graduate School of Engineering of Kobe University as Non-Degree Seeking Research Students.			

(D)	Entrance Exam Fee: 30,000 Japanese yen				All Applicants	<b>√</b>	_	Please complete the payment through the Online Application website. Any transfer fees must be borne by the applicant.  Japanese government-sponsored international students who will continue to be so after enrollment do not have to pay the fee. In addition, special measures will be taken to exempt applicants affected by severe disasters from the examination fee. For details, please check the Kobe University website.
(E)	Certificate of Japanese Government-sponsored International Student		Only applicable individuals	_	✓	Those who are currently receiving a scholarship from the Government of Japan and will continue to be Japanese government-sponsored international students after enrollment are required to submit the "Certificate of Japanese Government-sponsored International Student" from the university you are currently enrolled (unless you are a student of Kobe University).		
	Master's thesis	(a) A copy of your master's thesis	Applicants who have completed a master's degree program	✓ ≪【File Upload 1≫ (.pdf)	_	Written either in Japanese or in English. If not available, please contact the Academic Affairs Section of Graduate School of Engineering in advance and follow the instructions you will be provided.  Please download the cover form from the URL in the margin.  [Form download]  https://www.eng.kobeac.jp/examinee/doctor_202601.html		
(F) reference material may be submitted	material may be submitted along with either (a)	eference anterial (a) summary abmitted of long with ther (a) thesis	(master's course)	✓ ≪File Upload 2≫ (.pdf)	_	A set of copies of the outline written in both Japanese (approx. 2,000 characters) and English (approx. 1,200 words). Please combine both the Japanese and English texts into a single file. For foreign applicants, an English copy alone is sufficient.		
		(b) Research progress report	Applicants who are expected to complete a master's degree program (master's	✓ ≪File Upload 3≫ (.pdf)	_	A set of copies of the report written in both Japanese (approx. 2,000 characters) and English (approx. 1,200 words) (A4). For foreign applicants, an English copy alone is sufficient. Please download the cover form from the URL in the margin.		

			course) or have succeeded in eligibility screening			[Form download] https://www.eng.kobeac.jp/exa minee/doctor_202601.html
		Reference data	All applicants	✓ ≪File Upload 4≫ (.pdf)	I	Upload any other reference materials not listed above.
(G)	G) Research Proposal		All Applicants (except successful applicants of eligibility screening)	✓ ≪ File Upload 5 ≫ (.pdf)	_	A copy of A4 report written in Japanese (approx. 2,000 characters) or English (approx. 1,200 words) with a cover sheet designated by the Graduate School of Engineering (Form No. 7) indicating the details of your intended research and field.  Please download the cover form from the URL in the margin.  [Form download]  https://www.eng.kobeac.jp/examinee/doctor 202601.html
(H)	Resident Ce	rtificates	Internationa l applicants (Only for those residing in Japan)	✓ ≪File Upload 6≫ (.pdf)	l	Foreign applicants should upload a resident Certificate which is issued by the local municipality (valid for 30 days from issue date.) (Please make a PDF of the scanned or photographed copy of the certificate of residence.).

[Note]

- (1) No changes are allowed in the application documents once they have been received. The entrance exam fee will not be returned to an applicant except in cases where the applicant did not apply or the application was not accepted.
- (2) The certificates submitted must be the originals, and no photocopy of the certificate will be acceptable. Make sure that documents created in a foreign language other than English are accompanied by a Japanese translation or English translation with the translation accreditation issued by a public institution such as the diplomatic facilities of Japanese or foreign government.
- (3) Applicants should select a desired faculty member from the "Divisions, Research Topics, and Faculty Members" and select his/her name on the Online Application website. Without the desired faculty member's name, the application documents will not be accepted. Also, applicants should closely contact the expected academic supervisor and create a research proposal.
- (4) For those who submit a certificate of prospective graduation, please submit a certificate of graduation when you enroll. If the certificate does not show the degree you obtain, please submit a certificate of degree as well.

#### 4. ID for the Examination

Please download your ID for the examination from the My Page of the Online Application website.

You will receive a notification email at the email address registered on the Online Application website once the ID becomes available for download.

Print the downloaded ID for the examination in color and bring it with you on the day of the

exam.

If you do not receive the notification email by Tuesday, January 20, please contact the Academic Affairs Section.

#### **5. Screening Methods**

Admission will be determined based on the results of academic examination together with the submitted documents.

The academic examination will consist of an oral examination and interview.

- (1) Content of a master's thesis or research progress report
  - Examined as to whether or not the applicant has basic academic skills required for the course.
- (2) English capability (for applicants graduated from a foreign university, both English and Japanese language skills are examined)
  - Examined as to whether or not the applicant has language skills required for the course.
- (3) Content of research proposal
  - Examined as to whether or not the research plan meets the doctoral degree to be awarded.

#### 6. Date and Place for the Interviews

Date	Place	Remark
January 27, 2026 (Tue)	Graduate School of Engineering Building, Kobe University,	Applicants will be notified of time and place for the interview at a later date.  Online Application website.

[Access to Kobe University Graduate School of Engineering Building]

Hanshin "Mikage" station, JR "Rokkomichi" station, or Hankyu "Rokko" station.

Kobe City Bus No. 16 (bound for Rokko Cable)

Shindai Kokusai Bunkagaku Kenkyuka Mae, 5 min on foot to the Rokkodai Campus

For those who have difficulty in meeting at the indicated date and place above for special reasons, a remote interview might be permitted and provided through the internet. Applicants wishing to be interviewed remotely must apply to the expected academic supervisor and receive a written permit before submitting the application form.

#### 7. Announcement of Successful Applicants

### February 10, 2026 (Tue) 10:00 a.m. (scheduled)

You can check the selection results on the My Page of the Online Application website.

\*Inquiries will not be accepted via telephone.

#### 8. Admission Procedure

#### (1) Admission procedure period and admission documents

The admission procedure period is scheduled to be around mid-March 2026. The details will be mailed to each successful applicant in late February 2026 with necessary documents for the procedure. Please be aware that late submission of admission procedures will not be accepted under any circumstances, including but not limited to user errors, misinterpretation of the results, device issues or network problems.

#### (2) Fees

Division	In Japanese yen	Remark				
Admission fee	282,000	Admission admission pr		paid	during	the

Tuition fee	For semester	267,900	Refer to the "General Information for Successful Applicants" which will be sent in late February 2026.
	Annual total	535,800	[In case the tuition is revised, the new fee applied from the time of the revision.]

(Note) The amounts quoted above apply to 2025.

#### [Note]

- (1) The admission of applicants who fall under the following items may be revoked.
  - (A) Applicants who made a false declaration
  - (B) Applicants who did not meet the qualification requirements
- (2) The admission fee already paid will not be returned for any reason.
- (3) Admission fee and tuition fee are not required for Japanese government-sponsored international students who will continue to be so after enrollment.

#### 9. Eligibility Screening

Those who intend to apply under the requirements "2. Qualification for Applicants (7) or (8)" will be screened by the following documents submitted.

- (1) Documents necessary for screening
  - (A) Application Form for Examination of Qualification: the application form designated by the Graduate School of Engineering (Form No. 10)
  - (B) Graduation certificate created by the head of faculty or the principal of the university you graduated from
  - (C) Curriculum Vitae: the form designated by the Graduate School of Engineering (Form No. 2)
  - (D) History of research: created by immediate manager or representative of education/research institute or company where the research was conducted. If such a certification is unavailable, an application written by the applicant can substitute it. Use the form designated by the Graduate School of Engineering. (Form No. 11)
  - (E) Research experience (A4): the outline of a thesis that is "an equivalent of master's thesis". A set of copies written in both Japanese (approx. 2,000 characters) and English (approx. 1,200 words), with a cover sheet designated by the Graduate School of Engineering (Form No. 12). For foreign applicants, an English copy alone is sufficient.
  - (F) Materials of research achievements: Index of thesis and separate print (photocopy acceptable), which are the basis of the research achievements, along with references of other achievements, if any. In case of collaborative research, attach the material clearly indicating the portion the applicant was in charge.
  - (G) Research proposal (A4): a copy of a report indicating the field and research the applicant would like to explore, written either in Japanese (approx. 2,000 characters) or English (1, 200 words) with a cover sheet designated by the Graduate School of Engineering (Form No. 7).
  - (H) A self-addressed envelope (23.5cm long × 12cm wide with a 410 yen stamp)

Note that those who have completed a 6-year course of medical college, dental college, or veterinary medicine are not required to submit the abovementioned (D), (E) and (F).

[Form download] <a href="https://www.eng.kobe-.ac.jp/examinee/doctor\_202601.html">https://www.eng.kobe-.ac.jp/examinee/doctor\_202601.html</a>

(2) Period and place for submission

Your application documents must be submitted in person or mailed (simple registered mail marked "Application Form for Examination of Qualification for the Doctoral Program of Graduate School of System Informatics" in red on the envelope) by Friday, December 5, 2025, to the Academic Affairs Section of the Graduate School of Engineering.

Office hours (for those who hand in): Monday through Friday: 9:00-11:30 a.m. & 1:00-4:00 p.m.

(3) Announcement of the screening results

Successful applicants will be notified of the result by Tuesday, December 16, 2025.

#### 10. Others

1. Admission Fee Payment Exemption

The details will be announced via the website of Kobe University.

https://www.kobe-u.ac.jp/en/study in kobe/tuition/about exemption enrollment.html

2. Admission Fee Payment Deferral

The details will be announced via the website of Kobe University. https://www.kobe-u.ac.jp/en/study in kobe/tuition/about exemption enrollment.html

3. Tuition Fee Payment Exemption

The details will be announced via the website of Kobe University. https://www.kobe-u.ac.jp/en/study in kobe/tuition/about exemption tuition.html

- 4. Handling of personal information
  - (1) Kobe University complies with legislation such as the "Act on the Protection of Personal Information, Act No. 57 of May 30, 2003" in using applicants' personal information, and handles it based on the "Guideline on the Control of Personal Information Held by Kobe University."
  - (2) Personal information including the individual results of screening shall be used for screening (application procedures, conducting screening), announcement of successful applicants, enrollment procedures, future screening methods, and surveys/research aimed at improving university education. The results of these surveys/research will be published without information that could identify specific individuals.
  - (3) The personal information of enrolled students provided for the application will be used for supporting the students after enrollment (health management, tuition fee exemption or scholarship application), educational purposes (registration, academic instruction), tuition-fee related matters, and other corresponding work.
  - (4) Part of these operations may be outsourced to an agency (hereafter referred to as "Agency"). In cases where operations are outsourced, all or part of the personal information provided will be provided to such an Agency under a nondisclosure obligation within a certain limit necessary for the Agency to execute the operations.

#### 5. Control and Prevention of Infectious Diseases

Submission of a certificate demonstrating inoculation and an antibody test against measles and rubella:

Kobe University has implemented the *Measles and Rubella Registration Policy*, and all newly enrolled Kobe University students must submit one of the following three certificates (①, ②, or ③) to prevent a possible outbreak of measles and rubella on campus.

- ① A vaccination certificate to prove that you have received two doses each of the measles and rubella vaccine after turning one year old (recommended)
- ② A vaccination certificate to prove that you were inoculated with measles and rubella vaccines each within the last five years (since April 2021).
- ③ An antibody certificate to prove that you have sufficient antibody titer in your blood (refer to the chart next page) to prevent the development of measles and rubella, based on the results of an antibody test performed within the last five years (since April 2021)
- \* For ① and ②, a combined vaccine against measles and rubella (e.g., MR vaccine) is permissible.

- \* For ① and ②, the certificate must be issued by an accredited medical institution and state the <u>type of</u> vaccine and the date of inoculation.
- \* If you have a history of measles or rubella, please submit ③ or receive a vaccination and submit ① or ②.
- \* For ③, the certificate must specify the measuring method and the measured values of antibody titer in your blood (refer to the next page), and it must satisfy the judging standard listed in the chart. A blood test report sheet itself can be accepted for submission.

If the antibody titer in your blood is insufficient, you must receive the necessary vaccination, and submit either  $\mathbb Q$  or  $\mathbb Q$ .

- \* You may submit a combination of ①, ②, and ③ (e.g., ① for measles and ③ for rubella).
- \* If your antibody titer level is below the threshold, yet you are unable to receive the vaccinations due to certain circumstances (such as illness or specific body conditions), please provide an official document (like a medical certificate) that explains the reason.

#### Procedure, deadline, and location for submission

- All successful undergraduate and graduate applicants enrolling in April (except the Graduate School of Medicine and the Graduate School of Maritime Sciences):
  - Please submit at the time of the medical checkup for new students scheduled in April.
- Successful applicants enrolling in October:

Please submit the form at the time of the medical check-up for students entering in October.

Measuring methods and judging standards for blood antibody titers

	memous and judging standards for brood antibody fitters					
	Measuring Method	Judging Standard	Remarks			
	IgG — EIA method	$8.0 \leq \text{positive} \\ *$	Positive result by one of these three methods.			
Measles	PA method	$256x \leq positive \\ *$	<del>-</del>			
	NT method	$4.0x \leq Positive *$				
Rubella	HI method IgG — EIA method	$ 32x \leq positive \\ 8.0 \leq positive $	Positive result by one of these two methods. (HI method is recommended)			

- \* Antibody testing is not required if the vaccination history meets the requirements or if additional vaccinations are given.
- \* Make sure the above methods are followed when the antibody titer is measured in your blood.
- \* The protective antibody value differs according to the measuring method used. Please note that the judging standards are higher than the usual standards used at medical institutions.
- \* Before visiting a medical institution, please confirm in advance whether you can receive the necessary antibody tests and/or the vaccinations.

When you visit a doctor at a medical institution, make sure to present this document to obtain the necessary certificate(s). (In particular, when taking an antibody test, please ensure the measurement methods meet the above criteria.)

- \* Points to consider when submitting a certificate:
- ① Please bring the original certificate along with one copy (A4 size).
- ② If the certificate is written in a language other than Japanese or English, please attach a document showing the Japanese or English translation.

For further information, please refer to:

Medical Center for Student Health, Kobe University Tel: 078-803-5245

Student Support Division, Student Affairs Department, Kobe University Tel: 078-803-5219

### **OSpecial Education System for Students Entering From Workplace**

Recently, increasing numbers of engineers and researchers in the workforce wish to continued education and training as well as obtaining doctoral degrees in graduate school. However, education programs of graduate schools usually require them to spend time away from their workplace to focus on the graduate program for three years, which is likely to limit their learning opportunities. On the other hand, the "Graduate School Foundation Standard, Article 14" stipulates that "When special educational measures are recognized as necessary in the programs of the Graduate School, appropriate educational measures can be taken such as providing classes or research guidance during night or certain periods." considering the students from the workplace. Based on these backgrounds, the Doctoral Program of the Graduate School of Engineering has implemented special educational measures as stipulated by the statement for those students since 2005. (\*). The following items summarize the program.

- 1. Part of class by a faculty member upon an agreement of the member, and part of research guidance by academic supervisor upon an agreement of the supervisor, can be provided during night or a certain period.
- 2. If the academic supervisor recognizes that the thesis is making good progress, and that superior facilities or equipment for the research are provided in the relevant company where outstanding performance can be expected, the student can conduct research within the company.
  - (\*) Then, they were provided by the "Graduate School of Natural Science", the predecessor of the Graduate School of Engineering.

II Introduction to the Doctoral Program of the Graduate School of Engineering

#### 1. Philosophy and Features of Curriculum

The doctoral degree program of the Graduate School of Engineering provides highly-specialized education integrating the master's degree program and based on the policy of cultivating human resources after the course completion. At the same time, individual instruction is provided for new students to the doctoral program. The Graduate School of Engineering features the curriculum organization as indicated below.

The current courses of the Master's and the Doctoral Degree Program, which meet the students' demand for learning while covering subdivided and diversified disciplines of engineering, are the outline of the curriculum of the Graduate School of Engineering, into which course work and multi-major education are incorporated.

#### 2. Features of Doctoral Program Education

Fostering Interdisciplinary Perspectives:

Take a specialized course (optional) of other Graduate Schools or other departments fosters interdisciplinary perspectives.

Measures Taken for New Students Enrolled from Other Graduate Schools of Kobe University:

New students who enrolled in the doctoral program of the Graduate School of Engineering from other graduate schools of Kobe University may be instructed to take courses in the master's degree program if considered necessary.

#### Doctoral Degree Accreditation Process:

We provide research progress presentations for research concept, research progress, and future research plan during both the 1st year and 2nd year in order to instruct the students to create an appropriate doctoral thesis. In the 3rd year, the research result presentation is conducted, and if the research results are acknowledged as superior, the student can proceed to submitting the doctoral thesis and reviewing (including the doctoral thesis presentation). All departments make a concerted effort in conducting research progress presentations, research results presentations, and the doctoral thesis presentation so that each department can be involved in guiding the students' research. For those who finish early, the research result presentation and the doctoral thesis presentation are conducted during the 1st or the 2nd year.

#### 3. Departments and Divisions of the Graduate School of Engineering

The Graduate School of Engineering has five departments: Architecture, Civil Engineering, Electrical and Electronic Engineering, Mechanical Engineering, and Chemical Science and Engineering.

#### (1) Architecture

The Department of Architecture aims to create a variety of spaces and areas in daily lives and social lives. In these days, the targets of architecture as a science include not only the requirements of everyday life—comfort and convenience, or strength enough for safety—but the creation of buildings oriented to friendliness to environment and sustainable development. In other words, instead of focusing only on successive creation of buildings as in the past, what is needed now is the creation of new buildings that can coexist more harmoniously with the earth and the natural environment, preserving the human environment that has been built by human society for many years. In this department, in response to eternal challenges of human society, we provide the education and research to foster human resources who can consider architecture not only as a single entity but also as part of regional and urban spaces as well as the ecological environment directly connected with the earth. To realize this, the Department of Architecture consists of the following four divisions: Spatial Design, Architectural Planning, History and Theory, Structural Engineering of Buildings, and Architectural Environmental Engineering.

#### Spatial Design

The Division of Spatial Design aims to provide synthetic theory establishment and practical education and research on the creation of space, which includes architectural and environmental design, structural engineering design, structural and information systems and environmental management.

#### Architectural Planning, History and Theory

The Division of Architectural Planning, History and Theory provides education and research on basic architectural design including history and theory of architecture, conservation and renovation planning of historical environment, planning of human living, housing and regions, urban and architectural safety planning, architectural planning, and urban planning.

#### Structural Engineering of Buildings

The Division of Structural Engineering of Buildings conducts a broad range of researches with a mission to improve safety and resilience of buildings against natural and human-made hazards and provides an education program and a research opportunity involving advanced structural design and performance evaluation, proposal and application of novel technologies: structural controls and high-performance materials.

#### Architectural Environmental Engineering

The Division of Architectural Environmental Engineering provides education and research on analysis and control of acoustical, thermal, aerial, and lighting environment in buildings and analysis and planning of regional and urban environments.

#### (2) Civil Engineering

The Department of Civil Engineering offers programs to educate students who wish to become the pillars of public service demanded by citizens and society, in order to foster human resources with broader interdisciplinary perspectives embracing the traditional civil engineering fields, as well as high-level practical skills and expertise. Under the perspective of "New Civil Engineering in the 21st century" defined as extended engineering embracing both traditional civil engineering and engineering for urban redevelopment, public involvement, and globalization, our department provides education for creating safe and secured cities and regions against natural and social disasters, and education for sustaining the environment where cities and regions exist in symbiosis with nature, and maintaining and reviving urban facilities. To realize this, the Department of Civil Engineering consists of two divisions: Engineering of Human Safety and Engineering of Environmental Symbiosis.

#### Engineering of Human Safety

As a fundamental research field to create safe cities and regions against natural disasters and social disasters such as terrorism and traffic accidents, the Division of Engineering of Human Safety provides education and research programs related to the following fields: structural safety engineering, geotechnical safety engineering and transportation system engineering concerning social safety, and geo-disaster engineering, earthquake-disaster prevention engineering, and flood control engineering concerning the prevention of urban disasters.

#### Engineering of Environmental Symbiosis

As a fundamental research field with the aims of sustaining the environment and maintaining/reviving urban facilities that allow cities and regions to live in symbiosis with nature, the Division of Engineering of Environmental Symbiosis provides education and research programs related to the following fields: environmental fluid engineering, hydrospheric environment engineering and geo-environmental engineering concerning the environmental preservation of cities and regions, and wide-area environment engineering, urban safety & security engineering, and urban management engineering concerning the maintenance and revival of cities and regions involving symbiosis with nature.

#### (3) Electrical and Electronic Engineering

The Department of Electrical and Electronic Engineering shares the academic as well as technological bases with various research fields including computer information processing systems, information and telecommunications, computer science, quantum mechanics, and optical electromagnetic theory. In this department, we aim to foster human resources with highly specialized basic academic skills and basic research capabilities in the master's degree program; and we aim to foster human resources processing further advanced and pioneering research capabilities in the doctoral degree program. To this end, we provide systematic education and research—from basics to most advanced—on the science and technology that assume the core role of the modern society; and the basic theories and technologies required for establishing the new nano-materials, devices, hardware, software, wearable computing technology, and system engineering for the coming highly advanced information society, and its progress and new development. To be more specific, the Department of Electrical and Electronics Engineering consists of two divisions, Physical Electronics, and Computer and Information, which are functionally integrated and provide education and research on 1) electronics materials properties and device physics as the basis of electronics, 2) theories and technologies of information exchange, transmission, and processing, 3) conversion, transmission, and control of electrical energy, and basics of new energy system.

#### **Physical Electronics**

The Division of Physical Electronics provides education and research on solving the mechanism of quantum

mechanical interaction between electrons and light in various electrical materials such as semiconductors, developing new electrical materials, building the models of nano-devices and molecular devices incorporating the quantum behaviors of electronics, and developing new devices and systems with a view to applying the electrical energy.

#### Computer and Information

The Division of Computer Information provides education and research on information mathematics, information processing, information transmission, and information recognition to realize highly advanced computer information processing and communication systems, as well as the design and configuration of computer information devices including the large-scale integrated circuit (LSI).

#### (4) Mechanical Engineering

Mechanical engineering is a discipline that serves the basis for supporting the industrial society and the information society. In the Department of Mechanical Engineering, we provide education and research on a wide range of mechanical engineering and other related fields, including environment, energy, nanotechnology, robotics, and manufacturing systems as well as designing, manufacturing and controlling highly diversified and complex mechanical systems, from both hardware and software aspects by integrating and merging a number of advanced and sophisticated fundamental technologies, while maintaining harmony with society and the environment.

In the master's degree program, we foster human resources who have both highly specialized basic academic skills and basic capabilities of research and development, as well as high ethical standards and a global mind-set required for the leaders of the future society. In the doctoral degree program, we foster human resources who have the interdisciplinary sense and capability to perform creative research and development. To this end, the Department of Mechanical Engineering consists of the following four divisions: Heat Transfer and Fluid Engineering, Materials Physics and Mechanics, System Design, and Innovative Materials and Nano Engineering.

#### Heat Transfer and Fluid Engineering

The Division of Heat Transfer and Fluid Engineering aims to solve the complicated, diversified generative mechanism and transportation mechanism of fluid energy and thermal energy, to achieve their higher efficiency, and also provides general education and research on thermal and fluid energies from a wider perspective of the environment by systematically reviewing energy conversion.

#### Materials Physics and Mechanics

The Division of Mechanics and Physics of Materials provides education and research with a view to acquiring the basics of nanotechnology through evaluating the function, strength, and stability of the properties of solid structure, composition, and dynamics, by defining them from micro-, mezzo- and nano-hierarchies and constructing their organic interrelations, and through designing the function of the surfaces and interfaces.

#### System Design

The Division of System Design provides education and research on system design such as system analysis, intelligent robots, control systems theory, and advanced manufacturing systems, as well as on fundamental technologies such as sensors/actuators, functional materials, and machining, covering a wide range of -from microscopic to macroscopic- phenomena and objects related to the design and manufacturing of industrial products and other artifacts.

#### Innovative Materials and Nano Engineering

The Division of Innovative Materials and Nano Engineering provides education and research on design/manufacturing of advanced structural materials and nano electro-mechanical systems required in interdisciplinary fields in mechanical engineering such as medical engineering, information communication, and robotics, on the basis of nanotechnologies such as nanomaterial engineering/processing, and nano/micro-fabrications.

### (5) Chemical Science and Engineering

The Department of Chemical Science and Engineering offers consistent education and research, based on the new norms, by extensively integrating a range of contents including the basic chemistry of molecular levels, the provision of functionality for chemical substances and materials consisting of molecules, discovery of functionality, engineering application of biological functions to the creation of substances and manufacturing technologies, creating the actual macro industrial scales, and manufacturing technologies and systems, to foster

researchers and engineers who will lead the chemical industry of the future on a global scale. We provide education and research on the following: the analyses of structure and properties of molecular/nano order of chemical substances; creation of substances and materials of advanced functionality; developing biomaterials including biotic function applied technology and bioreactors; enhancing chemical engineering, manufacturing technology, and separation/purification technologies; and basic and application of the collective process system analyses. To this end, The Department of Chemical Science and Engineering consists of the following divisions: Applied Chemistry, Chemical Engineering, and 6 cooperative divisions; Localized Reactions and Physical Properties of Materials, Chemical Energy Conversion Process, Biofunctional Engineering, Pharmaceutical Technology, Chemical Biosensing, and Materials for Environment and Energy.

#### **Applied Chemistry**

The Division of Applied Chemistry provides education and research on mechanism clarification of functional development and new substances creation technology based thereon, from the engineering perspective, by providing precise, advanced functionality to chemical substances and materials, and creation of functionality, designed for a wide range of groups including from atomic, molecular level substances to nano-, mezzo-, and macro-substances, with the aim of combining the world of atoms and molecules made thereof and various functions created by the convergence of molecules.

#### Chemical Engineering

The Division of Chemical Engineering provides education and research on useful substances, high efficiency of energy, and development of low environmental load manufacturing process by developing new materials and reactive, catalytic substances, establishing the control method of reactive, transfer phenomena, and creating new manufacturing processes, based on the finding of intermolecular interaction, biological molecular functions/substances and energy transfer phenomena during the substance and energy conversion process based on the chemical and biological reaction.

#### Localized Reactions and Physical Properties of Materials (Cooperative division)

Cooperative education and research with National Institute of Advanced Industrial Science and Technology are carried out in various fields such as material design, synthesis, analysis, characterization, specific function, catalyst, nanobiology, biosensors, surface modification, and energy transformation.

#### Chemical Energy Conversion Process (Cooperative division)

Cooperative education and research with the National Institute of Advanced Industrial Science and Technology are carried out for various topics such as electrochemical science, porous materials, metal-organic frameworks, fuel cells, microanalysis, and solid electrochemistry.

#### Biofunctional Engineering (Cooperative division)

Cooperative education and research with Suntory Foundation for Life Sciences are carried out for the various topics such as post-genomic analysis, endocrinology, evolutionary biology, plant biology, metabolic engineering, and structural biology.

#### Pharmaceutical Design and Production Engineering (Cooperative division)

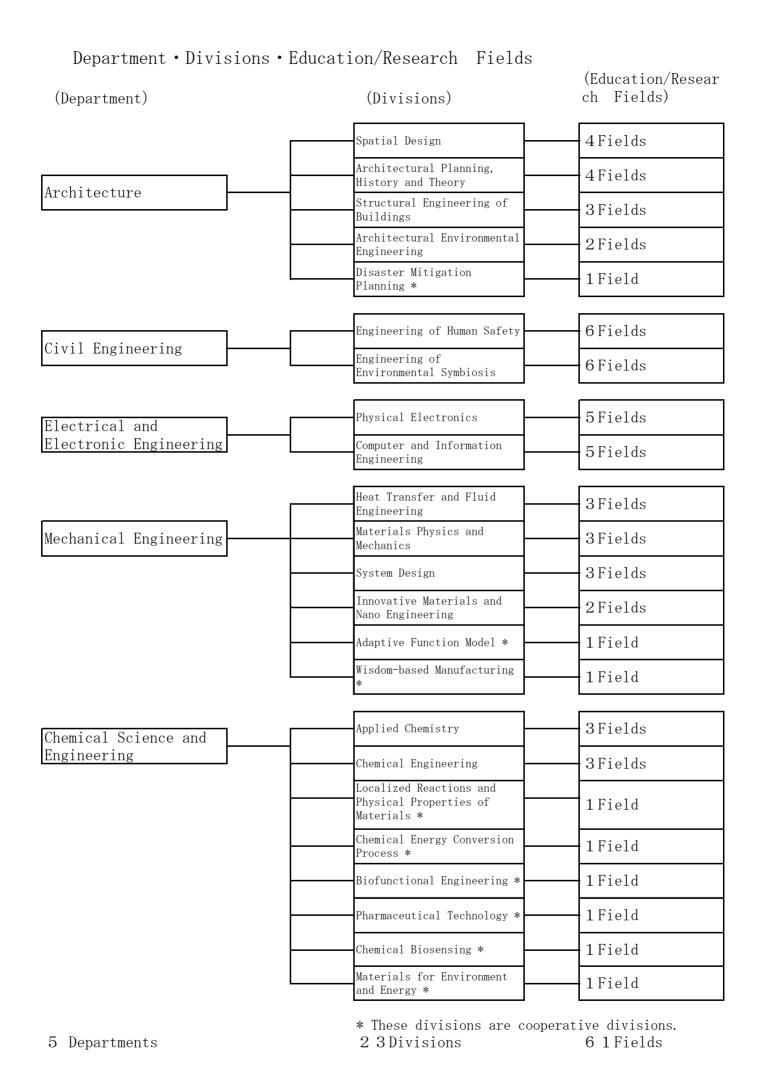
Cooperative education and research with Astellas Pharma Inc. are carried out for the various topics such as oral formulation technology, oral formulation process engineering technology, oral formulation packaging technology, tablets, capsules, granules, scale up theory, parenteral formulation technology, and parenteral formulation process engineering technology.

#### Chemical Biosensing (Cooperative division)

Cooperative education and research with National Institute of Advanced Industrial Science and Technology for the various research topics such as chemical sensors, biosensors, and bioanalysis

# Materials for Environment and Energy (Cooperative division)

Cooperative education and research with Japan Atomic Energy Agency regarding materials sciences for environment and energy, e.g., characterization for materials and chemical processes, material design and developments, separation sciences for noble metals, and f-element fundamental sciences, employing neutron and synchrotron radiations.



As of October 1, 2026

Department	Divisions	Education/Research Fields	Staff
		Architectural Design and Environmental Design	TSUKIHASHI Osamu
		Structural Engineering and Design	FUJINAGA Takashi
	Spatial Design	otractara Engineering and Design	MIZUSHIMA Yasunori
	Spatial Design	Structural and Information Systems	YAMABE Yuichiro
		Environmental Management	SUZUKI Hirotaka
		Environmental Management	TAKEBAYASHI Hideki
		History of Architecture	NAKAE Ken
		Thistory of Architecture	YASUDA Tetsuya
	Architectural Planning, History and Theory	Theory of Architecture	SUEKANE Shingo(Note2)
		Urban and Regional Planning	KURIYAMA Naoko
Architecture			YAMAGUCHI Hidefumi
		Planning for the Built Environment and Disaster Risk Reduction	KONDO Tamiyo
	Structural Engineering of Buildings	Steel Structures	NAMBA Hisashi
		Reinforced Concrete Structures	SUN Yuping (Note1)
		Remorced Concrete Structures	TAKEUCHI Takashi
		Structural Dynamics and Mechanics	MUKAI Yoichi
	Aughitantuus	Planning of Acoustical and Lighting	SAKAGAMI Kimihiro(Note2)
	Architectural Environmental Engineering	Environments	SATO Hayato
		Thermal Environmental Planning	TAKADA Satoru
	Disaster Mitigation	Disaster Mitigation Planning	KUBOTA Katsuaki
	Planning *	Disaster Milligation Flamining	OHTSU Nobuhito

<sup>\*</sup> This division is cooperative division.

(Note1)The faculty member is scheduled to retire in March, 2027. (Note2)The faculty member is scheduled to retire in March, 2029.

As of October 1, 2026

Department	Divisions	Education/Research Fields	Staff
		Structural Engineering for Urban Safety	MIKI Tomohiro
		Geotechnical Engineering for Urban	TACHIBANA Shinya
		Safety	TAKAYAMA Yusuke
		Transport Systems Engineering	OTAZAWA Toshimori
	Engineering of Human Safety	Transport Systems Engineering	SEYA Hajime
		Geotechnical Engineering for Disaster Reduction	TAKEYAMA Tomohide
		Earthquake Disaster Mitigation	NAGAO Takashi (Note1)
		Engineering	KUWATA Yasuko
Civil Engineering		Disaster-prevention Engineering for River Basin	TSUBAKI Ryota
	Engineering of	Environmental Fluid Engineering	UCHIYAMA Yusuke
			SAITO Masahiko
		Engineering of Hydrospheric Environment	NAKAYAMA Keisuke
		Geosphere Environmental Engineering *	
	Environmental		OISHI Satoru
	Symbiosis	Geo-environmental Engineering	KAJIKAWA Yoshiyuki
		Urban Preservation Engineering	HASHIMOTO Kunitaro
		Urban and Transport Planning and	KOIKE Atsushi
		Management	SEGI Shunsuke

(Note1)The faculty member is scheduled to retire in March, 2027. (Note2)Education/Research Fields marked with  $\ast$  are not selectable.

As of October 1, 2026

Department	Divisions	Education/Research Fields	As of October 1, 2026 Staff
			FUJII Minoru
		Mesoscopic Materials	SUGIMOTO Hiroshi
		Photonic Materials	KITA Takashi (Note1)
		Photonic Materials	ASAHI Shigeo
	Physical Electronics	Quantum Functional Engineering	KITAMURA Masatoshi
		Quantum Functional Engineering	HATTORI Yoshiaki
		Nano-Structure Electronics	ONO Tomoya
		Nano-Structure Electronics	SOUMA Satofumi
Electrical and		Electromagnetic Energy Physics	TAKENO Hiromasa (Note1)
Electronic Engineering	Computer and Information Engineering	Integrated Circuit Information	KUROKI Nobutaka
		Computer Engineering	TSUKAMOTO Masahiko
		Computer Engineering	TERADA Tsutomu
		Information and Communication	SHIRAISHI Yoshiaki
		Engineering	KUZUNO Hiroki
		Algorithms	NAKAMURA Masahide
			OZAWA Seiichi
		Intelligent Learning Theory	OMORI Toshiaki
			ITO Mari

(Note1)The faculty member is scheduled to retire in March, 2028.

As of October 1, 2026

Department	Divisions	Education/Research Fields	As of October 1, 2026 Staff
Mechanical Engineering	Heat Transfer and Fluid Engineering	Advanced Fluid Engineering	IMAI Yohsuke
			KATAOKA Takeshi
		Multiphase Fluid Dynamics	HAYASHI Kosuke
			KURIMOTO Ryo
		Energy Conversion Engineering	ASANO Hitoshi
			MURAKAWA Hideki
	Materials Physics and Mechanics	Structural Safety Evaluation	SHIOZAWA Daiki
		Fracture Control Engineering	TAGAWA Masahito (Note1)
		Structural and Functional Materials	TANAKA Katsushi (Note2)
			HASEBE Tadashi
	System Design	Function-Oriented Robotics	YOKOKOHJI Yasuyoshi (Note1)
			TAZAKI Yuichi
		Sensing Device Engineering	KANNO Isaku
			HIDA Hirotaka
		Advanced Manufacturing Systems	SUZUKI Norikazu
			NISHIDA Isamu
	Innovative Materials and Nano Engineering	Nano Electro Mechanical Systems	ISONO Yoshitada
			SUGANO Koji (Note3)
			HONMA Hiroaki
		Materials Design and Fabrication Engineering	MUKAI Toshiji (Note2) (Note3)
			IKEO Naoko
	Adaptive Function Model *	Adaptive Function Model	INOUE Shinichiro
			MIKI Shigehito
	Wisdom-based Manufacturing *	Wisdom-based Manufacturing	KUBOTA Tetsuya (Note2)

<sup>\*</sup> These divisions are cooperative divisions.

(Note1)The faculty member is scheduled to retire in March, 2027. (Note2)The faculty member is scheduled to retire in March, 2029.

(Note3) Concurrently in charge of Department of Mechanical Engineering (Affiliated with Department of Medical Device Engineering, Graduate School of Medicine)

As of October 1, 2026

Department	Divisions	Education/Research Fields	As of October 1, 2026 Staff
Department.	Applied Chemistry  Chemical Engineering	Creative Materials Chemistry	MIZUHATA Minoru
			OKANO Kentaro
			MAKI Hideshi
			YAMAGUCHI Sho
			MINAMIMOTO Hiro
			FUNAHASHI Masahiro
		Smart Materials Chemistry	HORIKE Shohei
			MINAMI Hideto
		Functional Material Chemistry  Separation and Reaction Engineering	MIYAZAKI Kouhei
			MATSUMOTO Takuya
			SUZUKI Nozomu
			MARUYAMA Tatsuo
			KAMIO Eiji
			OHMURA Naoto (Note2)
		Process Engineering	SUZUKI Hiroshi (Note1)
			KOMODA Yoshiyuki
Chemical Science and		Biochemical Engineering	YAMAJI Hideki (Note2)
Engineering			OGINO Chiaki
			ICHIHASHI Yuichi
			TANAKA Tsutomu
			KATSUDA Tomohisa
	Localized Reactions and Physical Properties of Materials *	Localized Reactions and Physical Properties of Materials	SHICHIRI Mototada
			NAKAMURA Tsutomu
			FUKUDA Nobuo
	Chemical Energy Conversion Process *	Chemical Energy Conversion Process	IOROI Tsutomu
			AKITA Tomoki
	Biofunctional Engineering *	Biofunctional Engineering	SATAKE Honoo
			FUJIKAWA Kohki
			SHIRAISHI Akira
	Pharmaceutical Technology *	Pharmaceutical Technology	KOBAYASHI Naoki
			KOJIMA Hiroyuki
	Chemical Biosensing *	Chemical Biosensing	FURUTANI Syunsuke
	Materials for Environment and Energy *	Materials for Environment and Energy	YAITA Tsuyoshi
			YOSHII Kenji
			KOBAYASHI Toru
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<sup>\*</sup> These divisions are cooperative divisions.

(Note1)The faculty member is scheduled to retire in March, 2027. (Note2)The faculty member is scheduled to retire in March, 2028.