Kobe University's 'Next-Generation Outstanding Doctoral Human Development Project based on Cocreation in Different Fields' Academic Year 2026 Application Guidelines

About Technology Agency (JST)'s Support for Pioneering Research Initiated by the Next Generation (SPRING) Program, Kobe University is inviting applications for this project for Kobe University's 'Next-Generation Outstanding Doctoral Human Development Project based on Cocreation in Different Fields'

1. Aim:

The project aims to give Kobe University doctoral students from various fields a solid grounding in mathematics and data science. This grounding will enable them to become outstanding PhD. graduates who can play an active global role in interdisciplinary fields. By cultivating transferable skills through our education and research, we aim to produce experts required by society.

2. Funding:

Those selected by this project will receive research support funds and research grants. In addition, we will provide a Comprehensive Support Package for Kobe University PhD. students to give recipients increased opportunities to improve their research skills and receive career path support.

Funding and research grants:Research support fund2,200,000yen per yearResearch grant250,000yen per year +additional funds• Additional funds will be provided based upon the review of the application contents and budget.

3. Period:

From April 1, 2026 until course completion (However this funding will not exceed the standard course completion period)

4. Number of Nominees:

Approximately 30 students in total

*However, the number of applicants may be subject to change depending on the screening process.

5. Eligible Graduate School:

All graduate schools at Kobe University.

6. Application Requirements:

The applicant must be fallen under all.

- 1) Students enrolled in the Master's Program of the Graduate School of Kobe University at the time of application
- 2) Applicants must be expected to be enrolled in the first year of the doctoral course at the Kobe University Graduate School as of April 1, 2026. However, those who are scheduled

to enroll in the academic year 2025 are excluded.

- 3) Those who are expected to complete their degree within the standard completion period.
- 4) The applicant should be affiliated with a laboratory that can manage the project's budget (includes prospective laboratory).
- 5) Apply for a JSPS research fellows (DC1).
- 6) Applicants must have the will and ability to be directly involved in science, technology and innovation in Japan after completing the doctoral program, and their post-completion career paths must be in line with this.

However, students to whom the following applies at the time of application cannot apply:

- MEXT scholarship students (including prospective students), and international students receiving scholarships from your home country. (However, some support may be available under certain conditions, so please contact the contact person for more information.)
- Students who are receiving an income (over 2,400,000yen per year) that meets their living expenses.

7. How to Apply:

- 1) Application Deadline : 2025/2/27 (Thursday) 12:00(noon)
- 2) Please complete R8-SPRING Form 1 and convert it to a PDF file, and submit it using the application form.

*The total file size must be less than 2 MB when sent.

*You can write your answers to sections $2 \sim 4$ of Form 1 in English

*Obtain approval to apply from your supervisor

*If you do not receive an email receipt after submission, please contact the contact person.

*If you are unable to submit an application using the application form, please contact the contact person.

Application Form: <u>https://forms.gle/fC2DYumGwqPFhnrx5</u>

8. Selection Process:

• Candidates will be chosen by the project's steering committee.

• Selections will be made by judging how well the information submitted in R8-SPRNG Form 1 corresponds to the review criteria on Sheet 2.

 \cdot Interviews will be carried out as required during the selection process.

 \cdot Selection results are due to be published on the Career Center homepage by around early April 2025.

• In case of rejection, applicants can apply again in the following year.

9. Recipient's responsibilities:

1) Submit a research progress report every year

For the year in which you complete your doctorate, you may use your degree thesis as the report.

2) The recipients are required to actively participate in the doctoral student support package programs (Sheet 1) and participate in the program equivalent to 2 credits of lessons (1 credit is

45 hours of study) per year. In particular, it is required that you make more than one presentation at the multidisciplinary joint research conference. However, the programs offered in this package may not be regular courses with credits.

3) Complete two credits of the mathematics and data science programs (Sheet 3) during the period.

4) Registration in the dedicated matching system for the job-based research internship program.

5) Actively disseminate the research results via academic papers and/or academic conference presentations.

6) Attend events specified by the steering committee.

7) Respond to various surveys, such as follow-up survey on your career 10 years after graduating.

*Please be aware that credit numbers and course names mentioned in this document are subject to change.

10. Disqualification, suspension or return from funding:

Project student status may be disqualified, suspended or returned if any of the following conditions are met.

1) The application requirements have not been met.

2) The execution of the research plan, or the funded student's performance of their duties is deemed to be unsatisfactory.

3) The applicant submits a withdrawal notice.

4) The university president or the project director or the project's steering committee determines that there is cause for disqualification or suspension.

11. Precautions:

 \cdot A final income tax return where research support funds are taxed as miscellaneous income is required.

•Recipients are permitted to earn remuneration from teaching assistant/part-time job positions, internships or prizes from academic societies, as long as these do not hinder their research activities.

• Your name will be published on the University homepage if your project is selected.

12. Inquiries:

Kobe University Main Office for Doctoral Student Support TEL: 078-803-5217 Email Address : crct-hakase@edu.kobe-u.ac.jp $({\rm Sheet}\;1)$

'Next-Generation Outstanding Doctoral Human Development Project based on Co-creation in Different Fields'

Comprehensive Support Package for Kobe University PhD students

- A. Global Education/Study Abroad Support Program
- B. Mid- to Long-term Internship Program
- C. Mathematics/Data Science Education Program
- D. Cross-disciplinary Co-creation Program
- E. Career Support Program for PhD
- F. International Student Support Program

$({\rm Sheet}\; 2)$

'Next-Generation Outstanding Doctoral Human Development Project based on Co-creation in Different Fields'

Review criteria	Contents
Research Achievements	Do the applicant's research achievements show future
	potential?
Positioning of Research	Does the applicant explain the background behind their
	chosen research theme, and is the idea outstanding?
Research aim/contents	Are the research aim, methodology and contents clearly
	indicated? Does the research method show originality
	and does the applicant indicate how they will develop
	their research topic?
Research Competency	Are the applicant's 'strengths in relation to research' and
	'factors considered necessary for further development'
	concretely explained, and are they able to sufficiently
	self-analyzed their own research performance? In
	addition, do they fully expect to become an outstanding
	researcher who bears responsibility for the future of
	academia?
Mathematics/Data Science	Does the applicant have a strong desire to acquire data
	science training?
Development into	Does the research plan or future plan contain aspects
multidisciplinary co-creation	that are expected to be developed into multidisciplinary
research	co-creation research?
Development of challenging	Does the research plan or future plan contain aspects
research	that are expected to be developed into
	pioneering/challenging research?
Development of new research	Is the applicant not only eager to contribute towards the
fields	development of their current specialized field but also to
	break into and develop new research fields?
Capacity to resolve social issues	Has the applicant paid attention to social issues? Have
	they acquired the skills via their doctoral research to
	contribute towards resolving these issues? How to
	contribute to science, technology and innovation in Japan
	in the future.
Future Plan	How to contribute to science, technology and innovation
	in Japan in the future

Review criteria and contents

(Sheet 3)

Mathematics/Data Science Education Program

Mathematical and data science education programs must take at least 2 credits before completion. These programs will be provided by Kobe University's Center for Mathematical and Data Sciences. These may not be a regular credited course depending on the graduate school. The following programs were held on AY 2024.

Course Title	credit	Contents
Advanced Data	1	In Advanced Data Science 1, students learn about the
Science 1	1	technical aspects of artificial intelligence and machine
Advanced Data	1	learning, which are the foundation of data science. In
Science 2	1	Advanced Data Science 2, problem-solving workshops are
Defence 2		held on the practical applications of data science based on
		case reports from companies on the user side of artificial
		intelligence technology and companies that provide
		technology (companies on the seed side).
Exercise in	1	Learn data analysis methods and acquire basic knowledge to
Practical Data	1	solve problems. Also, learn how to operate the system through
Science, A		hands-on exercises using actual data.
Exercise in	1	PBL (Project Based Learning) through group work, in which
Practical Data	T	data that may be relevant to actual issues is provided by the
Science, B		local government, with the aim of setting and solving issues
Delence, D		through data analysis and analysis.
PBL Exercises in	1	Practical learning of how to handle data, classification and
Data Science		regression problems using Python through PBL (Project Based
(contest type)		Learning) exercises modeled after data science competitions.
JRI-Kobe Open	1	Through PBL (Project Based Learning) group work, students
innovation		will learn how the basic technologies of information systems
Workshop		engineering, such as algorithms, data structures, cyber
Financial		security, information communication networks, and artificial
Business and		intelligence, are used in actual financial businesses and how
Information		they are deeply related to each other.
System		
Engineering		
Theory of	2	Students will understand the rudiments of stochastic
Stochastic		analysis based on Brownian motion. Students will also be
Processes		exposed to Black-Sholes theory, which has applications in
		financial engineering.
		*Advanced knowledge of mathematics is required as the level
		is quite high.
Topics in Applied	1	Learn the basic concepts of various statistical methods and
Mathematics 3a		how they are used in real life.
Topics in Applied	1	
Mathematics 3b		