

# Student Application Guidelines for 2025(1)



Graduate Course for System-inspired Leaders in  
Multidisciplinary Science (SiMS)  
A Program for Leading Graduate Schools  
Osaka Metropolitan University

# Contents

	Page
I. Program Outline-----	2
I-1. Doctorate Program -----	2
I-2. Picture of Human Resources to be Nurtured -----	2
I-3. Curricula -----	2
I-4. Feature of the Program -----	4
II. Outline of Admission-----	5
II-1. Admission Policy-----	5
II-2. Outline of selection method -----	6
II-3. Admission Spaces -----	6
II-4. Application Qualifications-----	7
II-5. Application Documents-----	7
II-6. Submission of Application Documents -----	8
II-7. Screening Method-----	8
II-8. Announcement of Examination Results-----	8
II-9. Enrollment procedure and briefing-----	8
II-10. Start of SiMS course and eligibility -----	8
II-11. Contact -----	9

# **I. Program Outline**

## **1. Doctorate Program**

In today's ever-evolving global landscape, the demand for highly-educated researchers capable of exhibiting robust leadership qualities is on the rise. This necessity stems from our collective goal of enhancing industry competitiveness and fostering sustainable innovation. Our mission is clear: to nurture exceptional individuals poised to take on pivotal roles across academia, industry, and government worldwide. In alignment with this vision, we present the "Graduate Course for System-inspired Leaders in Multidisciplinary Science," a comprehensive five-year doctoral program meticulously crafted to cultivate visionary leaders with a global mindset primed for the industrial sphere.

## **2. Picture of Human Resources to be Nurtured**

Our objective is to nurture researchers who embody the following abilities and characteristics:

1. A robust academic foundation and the capability to lead within their area of expertise.
2. A comprehensive understanding of diverse academic domains, transcending specific specialized fields.
3. Proficiency in crafting research strategies derived from multidisciplinary and multilevel interdisciplinary concepts.
4. Ingenuity and the capacity to translate fundamental research into industrial innovation.
5. Leadership prowess and the aptitude to organize and guide diverse teams towards shared objectives.
6. Competence in managing and implementing R&D strategies effectively.
7. Proficiency in disseminating ideas widely and establishing a strong global presence within the academic community.

## **3. Curricula**

This program is a five-year straight doctoral course designed to foster global leaders leading industries who have high abilities described in the above "2. Picture of human resources to be nurtured" The details are shown on the following page "Outline figure of Curriculum" and "Curricula and Accreditation." Those who are enrolled should take curricula in both of their own major and this program course. Accordingly, they can acquire gradually the ability mentioned at "Picture of human resources to be nurtured."

**Curriculum and Accreditation of the SiMS Program** (as of November 2024)  
(for students entered master's course before academic year 2023)

\*Compulsory

Courses	Subject title	Credits	Academic year	The number of credits for designated subjects
Literacy	Scientific Literacy*	2*	1-2	4 credits or more
	Studies on International Environmental Issues	2	1-2	
	Special Seminar for Scenario Task Oriented Planning	2	1-2	
	Technology Based Entrepreneurship Course*	2*	1-2	
Interdisciplinary	Special communication seminar based on multidisciplinary sciences	2	1-2	2 credits or more
	SiMS Special Research (Laboratory Rotation) *	2*	3-5	
Ideation	Special Seminar for Strategic Reasoning and Thinking1*	2*	1-2	4 credits or more
	Special Seminar for Strategic Reasoning and Thinking2*	2*	1-2	
	The Ideation and Globalization Workshop	2	3-5	
Global	Special Seminar for Global Communication	2	1-2	2 credits or more
	Global Leader Workshop*	2*	3-5	
Entrepreneurship	Technology-based-Entrepreneurship Course 1. (TEC-1 Business Planning)	2	3-5	4credits or more including 2 subjects (2 credits) from 8 subjects marked with (#).
	Technology-based-Entrepreneurship Course 2 A (#) (TEC-2A Management of Technology)	1	3-5	
	Technology-based-Entrepreneurship Course 2 B (#) (TEC-2B Management of Technology Exercises)	1	3-5	
	Technology-based-Entrepreneurship Course 2 C (#) (TEC-2C Intellectual Property Plan)	1	3-5	
	Technology-based-Entrepreneurship Course 2 D (#) (TEC-2D Idea Creation)	1	3-5	
	Technology-based-Entrepreneurship Course 2 E (#) (TEC-2E Management & Marketing)	1	3-5	
	Technology-based-Entrepreneurship Course 2 F (#) (TEC-2F Venture Business & Entrepreneurship Basics)	1	3-5	
	Technology-based-Entrepreneurship Course 2 G (#) (TEC-2G Venture Business)	1	3-5	
	Technology-based-Entrepreneurship Course 2 H (#) (TEC-2H Leadership)	1	3-5	
	Technology-based-Entrepreneurship Course 3 (TEC-3 Company Research Practical Seminar)	2	3-5	
	Technology-based-Entrepreneurship Course 4 (TEC-4 Training for Future R&D Leader Seminar)	2	3-5	
Number of credits required for completion				16 credits or more (including 12 required credits)

#### **4. Feature of the Program**

##### **(1) Excellent Support System**

###### **1) Personalized mentoring system by the experienced worker as corporative executives**

Students can receive comprehensive support for curriculum, research and study planning, research laboratory rotation and study abroad by personalized mentoring system.

###### **2) Business internship and career path support system**

Students can receive the support for selection of business internship and planning of personal career path from the Center of Advanced Education of Entrepreneurship and Innovation that has produced many researchers who are playing an active role in industry.

###### **3) Research grants and educational activities expenses support system**

Students can receive the expenses for the creative educational and research activities: approach to research project in different field; take lectures in foreign universities; attend international conference, within the budget.

###### **4) Overseas research support system**

Students have opportunities of study abroad for three months or longer, for the purpose of acquire and practice various qualities required to advanced researchers who lead industries globally.

##### **(2) Integrative five-year curriculum to acquire multidisciplinary thinking.**

- 1) Comprehensive understanding, multidisciplinary and multilevel interdisciplinary research skill through Interdisciplinary Courses and Laboratory Rotations.
- 2) Design skills, systems thinking, and international communication skills through Ideation and Global Courses.
- 3) Business development, management skills, intellectual property strategy, and leadership through Entrepreneurship Courses.
- 4) Research management skills, execution skills, and career design through interdisciplinary joint research and industry mentorship.

##### **(3) Exceptions to the interview for SPRING selection system**

Students enrolled in this program can obtain a letter of recommendation from the SIMS Office to waive the interview when applying for the Support for Pioneering Research Initiated by the Next Generation Home (SPRING) in the second year of the Master course.

## II. Outline of Admission

### 1. Admission Policy

The development of industry during the period of rapid economic growth in the 20th century has achieved its development with advanced stratification and deepening in individual fields based on discoveries in each scientific field. However, in recent years, the shift to industrial structure centered on new value creation that cannot be dealt with by technological frameworks in such individual fields has become apparent. In this change, it is urgent to build an industry that supports a sustainable society with international competitiveness by promoting strategic multilevel interdisciplinary research from the idea of starting from an industrial and business perspective beyond the seeds perspective, not just the integration of technical hierarchies. In light of the awareness of the issues mentioned above, for this Leading Program, which aims to educate system-inspired leaders for multidisciplinary science, who can design research strategies stemming from multilevel interdisciplinary ideas inspired by new value creation and formed through higher reasoning and thinking, we hope to recruit students who are highly motivated as follows:

- Students motivated to acquire a high level of expertise and excellent research skills in their major research.
- Students with an entrepreneurial mindset eager to link cutting-edge academic achievements with industrial innovation.
- Students motivated to actively work on multidisciplinary research in the global environment.
- Students motivated to demonstrate leadership and promote their own research.
- Students highly motivated and capable of designing one's own course-work and research plan for oneself so as to acquire the knowledge necessary for leaders with multidisciplinary science.

For more information, please visit the SiMS website.

<https://www.omu.ac.jp/las/sims/>

## 2. Outline of selection method

Students of this program are selected in the 2 ways as follows.

### **Selection method 1** - Course selection (described in this guideline)

In the first year of enrollment in the master's program, students apply for and participate in the “Special Seminar for Strategic Reasoning and Thinking2” (common graduate school courses, the second semester: need registration in September).

The selection is made according to the evaluation in the course. Students are only required to take the course, not need to write small essay, interview, oral examination. The earned credits will be recognized as the credits for the “Special Seminar for Strategic Reasoning and Thinking2” as a subject of this program after enrollment in the SiMS program course.

### **Selection method 2** - Examinations (small essay, interview)

The selection is made according to the total scores of small essay, oral examination and interview.

After enrolment in SiMS program course, “Special Seminar for Strategic Reasoning and Thinking(1&2)“ must be taken same as other designated subjects of this program.

## 3. Admission Spaces

Name of Degree Program	Number of students to be admitted
“Graduate Course for System-inspired Leaders in Multidisciplinary Science (SiMS)” (Program for Leading Graduate Schools)	Around 10

#### 4. Application Qualifications

Those who enrolled in the first year class of any one of the courses below at the time of applying to the SiMS program and commit to enrolling in the program if they pass the examination are qualified to apply for this Program.

[Master's program, Osaka Metropolitan University]

Graduate School Courses	Agriculture
	Engineering
	Human Life and Ecology
	Informatics
	Rehabilitation Science
	Science
	Sustainable System Sciences

The other courses are to be discussed in advance.

#### 5. Application Documents

Documents		How to prepare the forms, etc.
1	Application form	Follow the link listed in <b>6. Submission of Application Documents</b> and submit the required information.

Notes:

- (1) Please complete the "Application Form".in Japanese or English.
  1. Student ID
  2. Name (Kanji/Alphabet, Katakana)
  3. Campus
  4. Graduate School Course
  5. Supervisor
  6. Photo (upload JPEG or PDF data -full-faced, from the waist up, no caps/hat taken in three months.)
  7. Reason for application (approximately 300 words in Japanese /100 words in English)
- (2) Documents submitted for application will not be returned.
- (3) Changes in the application documents will not be accepted in principle once they are submitted.
- (4) If any erroneous or false statement is found in the submitted documents, the admission may be canceled.



- (5) Applicants' personal information disclosed upon application documents will be utilized solely for screening purposes, while some information of those who have passed the examination, such as academic transcript, may be utilized for educational purposes in this program.
- (6) No examination fee is charged.

## **6. Submission of Application Documents**

- (1) Submission period: December 2 - 17:00 December 8, 2024
- (2) Submission website: URL: <https://forms.office.com/r/mNSJej0R3K>

## **7. Screening Method**

The selection is made according to the evaluation of "Special Seminar for Strategic Reasoning and Thinking 2"

## **8. Announcement of Examination Results**

- (1) Time: 13:00 - 15:00 on December 16, 2024
- (2) Venues: The ID numbers of successful applicants will be listed on the SiMS website: <https://www.omu.ac.jp/las/sims/>  
※ No inquiry by telephone nor e-mail will be accepted.

## **9. Enrollment procedure and briefing**

- (1) Time: 15:00 on February 6, 2025 (about one hour)
- (2) Venues: 329, A6 Building in the OMU Nakamozu Campus
- (3) Contents: Enrollment procedure and explanation of curricula;
  - \* Delivery of Acceptance notice
  - \* Filling up on documents and submission
  - \* Orientation
  - \* Delivery of Course registration guidance and syllabus, and explanation of curricula
  - \* Others

## **10. Start of SiMS course and eligibility**

- (1) Start of SiMS: April 1, 2025
- (2) Eligibility: Successful applicants, who passed the examination and enrolled in the graduate school courses of Osaka Metropolitan University are eligible for the enrollment in the SiMS program.

## 11. Contact

(SiMS Office)

Center for advanced education in entrepreneurship and innovation

Faculty of Liberal Arts and Sciences and Global Education

Osaka Metropolitan University

Room 312, 3<sup>rd</sup> Floor of A6 Building,

1-1 Gakuencho, Naka-ku, Sakai City,

Osaka, Japan 599-8531

TEL: 072-254-7567 (direct number)

FAX: 072-254-8274

E-mail: [gr-idec-sims@omu.ac.jp](mailto:gr-idec-sims@omu.ac.jp)

URL: <https://www.omu.ac.jp/las/sims/>