

Course Number	0 6 0 3 9
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2006 「The International Priority Graduate Programs (PGP)」

～Advanced Graduate Courses for International Students～

【1. Profile of the University】

①University Department	Graduate School of Engineering Science, Osaka University		
②President	MIYAHARA Hideo		
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⑤Web-Address	<a href="http://www.es.osaka-u.ac.jp/eng/gradadm/es21.html">http://www.es.osaka-u.ac.jp/eng/gradadm/es21.html</a>		
⑥Enrollment (only GraduateSchool)	689	(include MEXT's Sholorship Students: 238 )	

【2. Outline of the Course】

①Course	Research Alliance for Advanced Science and Engineering, Grounded on the Cooperative Supervision of Students
②Degree	Master of Engineering, Doctor of Philosophy in Engineerig or Science
③Graduate Course, Department	Department of Materials Engineering Science, Graduate School of Engineering Science
	(Address) 1-3 Machikaneyama-cho, Toyonaka, Osaka 560-8531 JAPAN
④Collaboration (Universities, Graduate courses, Departments)	Department of Mechanical Science and Bioengineering, Graduate School of Engineering Science  Department of Systems Innovation, Graduate School of Engineering Science
⑤Quota	10 (include MEXT's Schlorship Students: 5 ) (include Japanese : 0 )
⑥Faculties	220 (Fulltime:178 Fuiitime (other department): 20 Parttime: 22 )
⑦Representative of the Course	Job Title Dean of Graduate School of Engineering Science, Professor
	Name NISHIDA Shogo

【3. Contens of the Course】

### **3.1 Objectives**

The Graduate School of Engineering Science, Osaka University, is the core of education and research activities in the science and engineering fields at our University. We promote a policy of research and education, unique in scope among existing specialized areas of science and technology, based on the principle that “we contribute to the creation of the true culture of mankind through a devotion to the fundamental developments of technology via a fusion of science and engineering”. Since its establishment, we have brought forth a number of graduates, flexible and rich in creativity, who excel in their specialized areas, and also have a broad knowledge of other disciplines. Our alumni seek to answer the needs of society and are earning a high reputation both inside and outside Japan. We seek to promote international collaborative research with scientists and engineers from Occidental and Asian countries and encourage international student applicants to enter our programs. To ensure such collaboration, our professors and students work side by side in programs of international exchange supported by the Japanese Government. Our program also hosts the “International Student Network”, under the activities of the Multidisciplinary Research Laboratory Systems, specially supported by the Graduate School of Engineering Science.

The Graduate School has become important as an international research and education hub, conducive to the development and growth of multidisciplinary exploration with good prospects of technologies from a medium to long term stand point, which can lead the world in the globalization of the 21st century. The formation of such an international hub has proven essential towards producing researchers and engineers who obtain a profound depth of specialization and high capacity for research and development, and who can demonstrate their leadership internationally. The program, “Research Alliance for Advanced Science and Engineering, Grounded on the Cooperative Supervision of Students”, develops interdisciplinary research and education even more, given its cross-disciplinary curriculum and organization. This alliance takes full advantage of the qualities of the Graduate School of Engineering Science to meet its objective to educate foreign students that will fare well in the international society of the 21st century. In October 2003, our Graduate School began the special English course, “Engineering Science 21<sup>st</sup> Century”, in which lectures and research-related supervision are taught in English. Our graduate program plans to continue to expand this special English course and improve upon the system and its acceptance of high-achieving students from all over the world. We also seek to create a “Research and Education Alliance for Advanced Science and Engineering” in order to better perform bilateral exchange in the true sense. This program includes not only senior advisors, but also young researchers and Japanese students through a double supervisor system, which pairs Japanese professors and foreign researchers (refer to the illustration on the next page).

### **3.2 Outstanding points**

1) Admission System for Second Year Students: In the master’s course we have an “MC1 course”, in which both privately funded as well as Japanese Government sponsored foreign students start from the first year, and a “MC2 course”, in which foreign students can enter into the second year, according to their educational achievements in their universities of origin. As for the “MC2”, we accept applications mainly from universities with which we hold an agreement of international academic exchange; we take into account the content of their prior graduate course study along with the specialty and expertise of the student to validate credits earned abroad. There are ten foreign students accepted annually, (five of whom are Japanese Government sponsored students). The distribution of the number of students to the MC1 and MC2 is determined according to the application circumstances of each given year.

2) Double supervisor system: Both in the case of master’s and doctoral students, an adviser will be picked among the professors that belong to the Departments of Materials Engineering Science, Mechanical Science and Bioengineering, and Systems Innovation, based on the wishes of the student and the consent of the Japanese professor who accepts the student. As for the Japanese professors, there are 51 professors and 55 associate professors in the 3 departments and 11 areas. Together, they create a support system able to attend to the broad needs and research guidance of the many foreign students. The Japanese advisor selects an appropriate researcher to guide the student as a foreign advisor (not necessarily from the same country as the student). This is the “double supervisor system”, with both a Japanese Professor and a Foreign Associate assigned for each student. Especially for doctoral students, personal advising may be done through mutual visits between the two when needed. The times when the student would receive advising sessions with their foreign advisor could be scheduled and reserved, thus promoting a highly effective exchange for research and training. Also, in order to assist international collaboration, the Graduate School of Engineering Science is prepared to support the oversea travels of students, if needed.

3) Support System for Foreign Students: While the Osaka University International Student Center helps with initial lodging concerns of the students, the Graduate School of Engineering Science also assists foreign students to find reasonable housing. As for other aspects of daily life, the staff of the Advising Office for International Students of the Graduate School of Engineering Science can help the students meet most of their needs. This office provides necessary information for daily life. As a means of financial aid for privately funded students, we employ students with outstanding academic results in the doctoral course as research assistants, and in the master’s course to be teaching assistants.

**Special English Course “Engineering Science 21<sup>st</sup> Century”  
Graduate School of Engineering Science, Osaka University**

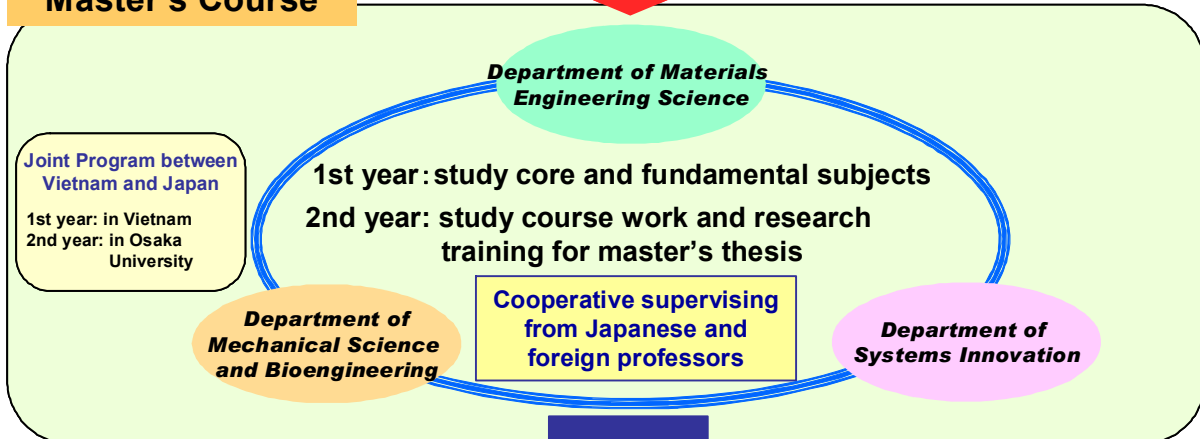
**Japanese Government Sponsored Students: 5  
Privately Funded Students: 5**

Enroll as a  
first year  
student  
(MC 1)

**Flexible admission  
system**

Enroll as a  
second year  
student  
(MC 2)

**Master’s Course**



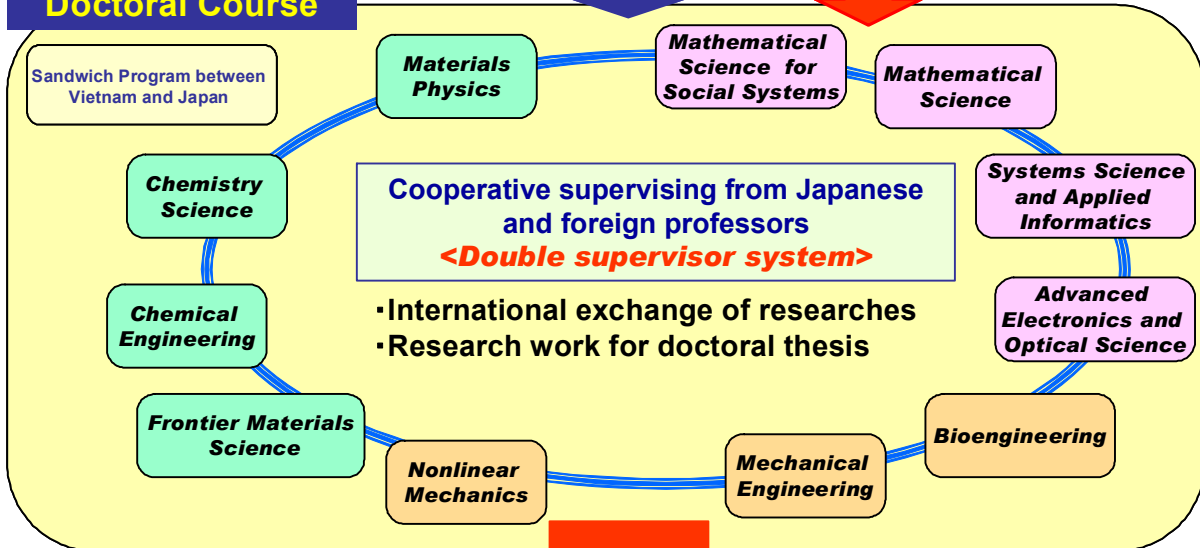
**Master's Degree**

**Successive Entrance**

**Enrollment**

Privately funded students with Master Degree

**Doctoral Course**



**Doctoral Degree**

**Engineering scientists leading advanced research areas**

**Research & Education Alliance for Creating Frontiers of Science & Technology**

**Outline of the program**

Visit to <http://www.es.osaka-u.ac.jp/eng/gradadm/es21.html>