

Course Number	06048
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2006 「The International Priority Graduate Programs (PGP)」

～Advanced Graduate Courses for International Students～

【1. Profile of the University】

①University Department	Kyushu University Graduate School of Engineering			
②President	KAJIYAMA Tisato			
③Address (Headquarters)	6-10-1 Hakozaki, Higashi-ku, Fukuoka 812-8581, Japan			
④Contact	Division	Administrative Office for the Faculty of Engineering etc. Instruction Division, Student Support Section		
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	TEL/FAX Number	+81-92-802-2735, +81-92-802-2725		
⑤Web-Address	http://www.c-shop.net/kyushu/ http://www.eng.kyushu-u.ac.jp/gakufu/			
⑥Enrollment (only Graduate School)	987 (include MEXT's Scholarship Students: 282)			

【2. Outline of the Course】

①Course	International Special Course on Environmental Systems Engineering			
②Degree	Doctor of Engineering (3 years)			
③Graduate Course, Department	Department of Earth Resources Engineering, Graduate School of Engineering			
	(Address) 744 Motoooka, Nishi-ku, Fukuoka 819-0395, Japan			
④Collaboration (Universities, Graduate courses, Departments)	Kyushu University, Graduate School of Engineering Department of Civil and Structural Engineering Department of Urban and Environmental Engineering Department of Maritime Engineering Department of Applied Quantum Physics and Nuclear Engineering			
⑤Quota	20	(include MEXT's Scholarship Students: 10) (include Japanese : 0)		
⑥Faculties	96	(Full-time(only for this course):96 Full-time(at the department offering this course):0 Part-time:0)		
⑦Representative of the Course	Job Title	Dean, Graduate School of Engineering		
	Name	SUEOKA Atsuo		

【3. Contents of the Course】

【ESTABLISHMENT OF THE PROGRAM】



Energy and environmental problems occur globally and their situations are getting serious, particularly in developing countries. Thus, developing manpower that can handle these problems is of urgent task in academia. This program aims to develop human resources with advanced engineering skills and knowledge for dealing with these problems. Five departments of Faculty of Engineering of Kyushu University aggressively concentrate their research and educational activities in the field of Earth Environmental Engineering, and take charge of establishing and running this program for fostering human resources who can work internationally.

【CONTENT AND CHARACTERISTICS OF PROGRAM】



This program is composed mainly of lectures and research projects, and all are given in English. The program can be divided into five categories: common lectures, research project, study tour, research Seminar, and special lectures.

COMMON LECTURES : Present energy and environmental problems extend over an extremely wide area, therefore the acquisition of basic interdisciplinary knowledge related to these problems is most needed. For this purpose, seven common lectures are prepared and given by professors of five departments and Institute of Environmental Systems. The lectures are all given in English.

RESEARCH PROJECT : One of the main purpose of the program is to complete a research project and acquire doctor's degree within a three years period. The students are allocated to respective laboratories for conducting her/his research project under supervision of professors. Duration of the program is three years, and all students are expected to complete their projects within this period. In order to achieve the objectives, students are requested to discuss with her/his expected supervising professor on their research subjects at the stage of submitting application form to the program. This discussion in advance leads to a prompt start of their project upon their enrolment in the program. Moreover, the supervising professor explains a schedule in detail for making necessary outputs for degree acquisition such as submitting papers to conferences and international journals, and writing dissertation for the degree.

RESEARCH SEMINAR : The research seminar is regularly held in the laboratory where each student is allocated. Presentation and discussions are made in English including Japanese students in the laboratory. Moreover, the international workshop on Earth Science and Technology is held annually and the students are advised and encouraged to present papers on the results of their research. Professors of the related departments review the submitted papers to assure the quality of the papers.



(ITO CAMPUS, KYUSHU UNIVERSITY)

STUDY TOUR : One common lecture, Practical Environmental Engineering, is organized such way that the subject combines lecture with site visit. Understanding of environmental engineering can be promoted by combining lectures and site visit. A half-day to one full day field trips include visits to waste incineration plant, landfill site, water treatment plant, and nuclear power plant. In addition, the study tour organized once or twice a year, this study tour includes visits to the sites of the development of renewable energy resources and environmental restoration in Kyushu.

SPECIAL LECTURE : In frame of this program famous domestic and foreign researchers as well as Japanese engineers with abundant experiences in foreign countries are invited to give a special lecture of the latest research topics or accomplishments in overseas projects. In particular, a special lecture is regularly given by the Head of UN HABITAT (United Nations Commission on Human Settlement) office in Fukuoka. He gives a lecture on the living environment of the developing countries. Students can study and learn the realities of an international activity such as start-ups of an idea and an overseas project of the United Nations activity.



(STUDY TOUR 2005)

[COURSE AND SYSTEM OF FOLLOW-UP AFTER COMPLETING THIS PROGRAM]

This program aims developing human resources who acquire advanced engineering technologies in the field of energy development and environment, and consequently they can contribute to solving energy and environmental problems in their own countries. Most of the students, who completed the former course in September 2005, have returned their home countries where they started to work as research staff or faculty staff at universities and research institutes as well as private sectors. A few ex-students have got their position at university and national research institute in Japan for empowering their engineering knowledge and techniques what they obtained through their doctors project. Application to these positions is open to public at most of universities and research institutes in Japan, and selection for the position would be made under competitive conditions. This implies that academic achievements by ex-students have been highly recognized and evaluated by these outside organizations.

In addition, the supervising professors continuously and positively support the students graduated from the former course through discussions of the research, assistance to submitting the proposals of a joint research, the solution of a concrete project problem.

Annual Report of the former course was published, and it included articles on the recent scientific activities of the present students such as published papers. These activities are succeeded in the newly formed program.

[RECRUIT CANDIDATE STUDENTS AND SELECTION RULE]

Recruiting candidate students for the program is focused on engineers of private companies, researchers in national research institutes and universities in the developing countries in Asia, the Middle East, and Latin America. However, the candidates from universities with whom Kyushu University concluded the agreement of the student exchange and have active exchange results with the supervising professors are given a priority for Japanese government scholarship. Professors of the departments visit related universities and introduce the program when they have chance visiting those countries for attending conferences or workshops. If there is any candidate for the program, professors interview applicants and investigate their engineering and scientific background, and the results of the interview can be used as judgment information in the selection committee for Japanese government scholarship. Homepage on the program can be found at URL <http://www.c-shop.net/kyushu/>.

On selecting students as a recipient of the scholarship in the steering committee, the expected supervising professors prepare and summarize information on applicants: academic background, research, research topics for the project, contact situation with applicant, and proficiency in English. Each department prepares applicant list with a nomination order for scholarship. The steering committee composed of the representative of each department select the excellent students by judging applicant's achievements and their academic background without biasing to a specific country.

[SPECIAL NOTES]

1. The former international student who made distinguished and outstanding achievements acquired the doctor's degree within three years, Four student of the former international course (two students were registered in FY2002) have acquired the doctor's degree in two years (one student is in 2 and a half years) so far.

2. Construction of human network: Kyushu University conducted international training courses of Japan International Cooperation Agency (JICA) on geothermal energy, coal science and technology, and renewable energy for the past 30 years, and trained more than 500 trainees. These experiences in international training and education have led us to establishing of the former international course. We continuously have made efforts for developing human resources such as highly skilled engineers and researchers in developing countries through these activities.

In addition, Department of Earth Resources Engineering of Kyushu University acts as supporting university in the project of Southeast Asia Engineering Education Development Network by JICA. We accept students from ASEAN countries through this program for graduate school. The number of students who completed the former course is rather small because of short time elapsed since the start of the course. The ex-students of the course, however, have started their academic or engineering positions in their countries. On the basis of these international activities, Kyushu University succeeded in winning the JICA technical support project as a representative of the consortium in 2006: Project for Improving Higher Education Institutions through University-Industry-Community Links (Hi-LINK) in Gadjah Mada University. One of the students of the former course, now employed as a research associate of Kyushu University, joined the team of the project as a research support member, and this will develop a new human network.

3. One foreign research staff is assigned for this program as working full-time to support students of the course. His or her tasks cover a wide range, but mainly for solving various problems that become obstacles in students study and research such as guidance in writing scientific papers in English, consultation of the problems in daily life. He or she also prepares lecture materials, makes the electronic files and so on.