| Course Number | 09004 |
|---|---|

2009「The International Priority Graduate Programs (PGP)」
～Advanced Graduate Courses for International Students～

【1. Profile of the University】

| | | | | |
|---|---|---|---|---|
| ①University Department | Graduate School of Engineering, Kyoto University | | | |
| ②President | MATSUMOTO Hiroshi | | | |
| ③Address (Headquarters) | Yoshida-honmachi Sakyo-ku Kyoto 606-8501 Japan | | | |
| ④Contact | Division | Foreign Student Division | | |
| | Contact person's Name | KAI Kumiko | e-mail | kumiko.kai@mail2.adm.kyoto-u.ac.jp |
| | TEL/FAX Number | (TEL)+81-75-753-2489, (FAX)+81-75-753-2562 | | |
| ⑤Web-Address | http://www.kyoto-u.ac.jp | | | |
| ⑥Enrollment (only GraduateSchool) | 1,194 （include MEXT's Scholarship Students：484 ） | | | |

【2. Outline of the Course】

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|---|---|
| ①Course | Integrated Engineering Course in the human security engineering field |
| ②Degree | Doctor of Engineering or PhD(Engineering) |
| ③Form | The program is run by a single university |
| ④Graduate Course, Department | Department of Urban and Environmental Engineering, Graduate School of Engineering |
| | （Address）KyotodaigakuKatsura Nishikyo-ku, 615-8540 Japan |
| ⑤Collaboration (Universities, Graduate courses, Departments) | Kyoto University, Graduate School of Engineering,<br>Department of Urban Management, Department of Civil and Earth Resources Engineering, and Department of Architecture and Architectural Engineering |
| ⑥Quota | 20 （include MEXT's Scholarship Students：4 ）<br>（include Japanese : 8 ） |
| ⑦Faculties | 127（Fulltime：127 Fulltime(other department)： 0 Parttime： 0 ） |
| ⑧Representative of the Course | Job Title: Dean of graduate school of Engineering |
| | Name: OSHIMA Koichiro |

【3. Contents of the Course】

## 1. Educational objective

(To foster creative, international and independent human resources with education in four related academic fields)

This program is intended for doctoral students to acquire interdisciplinary and solid education in the core fields that support urban human security engineering and in four related fields (urban governance, urban infrastructure management, health risk management and disaster risk management). It will foster researchers and advanced engineers who have the ability to integrate and apply their knowledge toward ensuring urban human security according to the purpose, and the ability to deepen and advance the technologies. Specifically, this program aims to foster human resources who have creativity (in addition to a wide range of knowledge about human security engineering for Asian megacities, the ability to go beyond the boundaries of existing specialized fields); internationality (the ability to present and debate research in English, perform education and research activities overseas, and build an international human network); and independence (the ability to plan research, lead education and research, secure research funds, and solve problems in the field).

To achieve this educational objective, We provide an educational program in English consisting of an Introduction to Human Security Engineering, basic subjects in the four related academic fields, overseas internships, and others. The Graduate School of Engineering (Department of Urban and Environmental Engineering, Department of Urban Management, Department of Civil and Earth Resources Engineering, Department of Architecture and Architectural Engineering), Graduate School of Global Environmental Studies, and Disaster Prevention Research Institute participate in the program as departments responsible for instruction.

## 2. Subjects Available for the Program

The subjects listed in Table 1 will be offered as the program subjects at the Graduate School of Engineering. All the lectures will be given in English.

## 3. Requirements for Program Completion

1) Completed the obligatory core subject “Human Security Engineering” (2 credits) of the core subjects in Table 1.
2) Earned at least 1 subject / 2 credits from the core subjects of Groups A to D.
3) Earned at least 2 credits from the ORT subjects in Table 1.
4) Earned at least 10 credits from the subjects in Table 1. Note that, however, that subjects of the graduate school which are not included in the table above can be certified as required credits for completion under the guidance of the main/sub supervisor(s) only if the total number of such credits is equal to or less than 4.
5) Conducted doctoral research in adherence with the spirit of the this program and passed the examination of the doctoral thesis.

## 4. Subject Choice Guidance Based on Program Course Application

In order to provide detailed subject choice guidance for the students, the program requires students to prepare a course plan of the subjects they wish to undertake, receive approval from their supervisor, and submit it together with the Human Security Engineering Education Program - Course Application. Although the course plan can be changed when the student proceeds to the next grade, this requires approval from the supervisor.

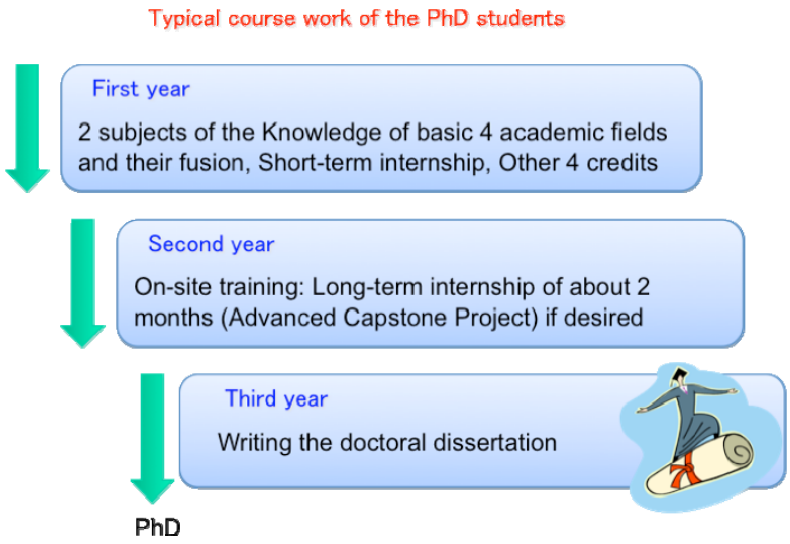

Table 1: Subjects Available for the Program

| Subject Grouping | Subject Name | Hrs/Week | | Credits | Course Specification |
|---|---|---|---|---|---|
| | | 1st semester | 2nd semester | | |
| | Human Security Engineering | 2 | | 2 | Obligatory/ Core subject |
| Group A | Urban Governance | 2 | | 2 | Core subject |
| Group A | Lectures on Urban Governance 1 | 2 | | 2 | |
| Group A | Lectures on Urban Governance 2 | | 2 | 2 | |
| Group A | *Global Environmental Law and Policy | 2 | | 2 | |
| Group B | Urban Infrastructure Management | 2 | | 2 | Core subject |
| Group B | Governance for Regional and Transportation Planning | | 2 | 2 | |
| Group B | Lectures on Urban Infrastructure Management 1 | 2 | | 2 | |
| Group B | Lectures on Urban Infrastructure Management 2 | | 2 | 2 | |
| Group B | *Global Environmental Economics | 2 | | 2 | |
| Group C | Lecture on Environmental Risk Management Leader | 2 | | 2 | Core subject |
| Group C | Lectures on Health Risk Management 1 | 2 | | 2 | |
| Group C | Lectures on Health Risk Management 2 | | 2 | 2 | |
| Group C | Environmental Engineering for Asian | 2 | (2) | 2 | |
| Group C | *Management of Global Resources and Ecosystems | 2 | | 2 | |
| Group C | *Environmental Ethics and Environmental Education | 2 | | 2 | |
| Group D | Disaster Risk Management | 2 | | 2 | Core subject |
| Group D | Lectures on Disaster Risk Management 1 | 2 | | 2 | |
| Group D | Lectures on Disaster Risk Management 2 | | 2 | 2 | |
| | Internship for Human Security Engineering | (2) | (2) | 2 | ORT subject |
| | Advanced Capstone Project | (8) | (8) | 8 | ORT subject |
| | Research Paper (Doctoral) | | | | Obligatory |

- Group A: urban governance research field, Group B: urban infrastructure management research field, Group C: health risk management research field, Group D: disaster risk management research field
- The "*" mark indicates that the subject is offered by the Graduate School of Global Environmental Studies.
- ORT subject: On-site Training subject or On-the-research-training subject

Examples of Internship for Human Security Engineering (normally 2 weeks): 1) Presentation at international conference followed by information collection at laboratories of foreign universities. 2) Normal internship at companies to study the state of the art technologies or practical business.

Examples of Advanced Capstone Project (more than 2 months on site): 1) Field work at oversea bases for each student's research. 2) Working as a visiting researcher at agencies related to human security engineering .