

**Kyoto University**

**Human Security Engineering for Asian Megacities**

# **Human Security Engineering Education Program**

Integrated Engineering Course, Human Security Engineering Field  
(Human Security Engineering Education Program)  
Graduate School of Engineering

Human Security Engineering Advanced Course  
Graduate School of Global Environmental Studies

Human Security Engineering Education Program - Course  
Graduate School of Informatics



2013



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## **(1) What Is the Human Security Engineering Education Program?**

Educational objective:

Motivating creative, international and independent researchers and engineers with training in four related academic fields.

To achieve the educational objectives of the Human Security Engineering Education (HSE) Program, we provide the HSE courses of the program, the basic subjects in the four academic fields, and the overseas internship through the English language. The Graduate School of Engineering (three departments related to global engineering, Department of Architecture and Architectural Engineering), the Hall of Global Environmental Research, the Graduate School of Global Environmental Studies, and the Disaster Prevention Research Institute are participating in this program and are responsible for training and research.

## **(2) Educational Policy**

Our policy is intended for doctoral students to provide interdisciplinary and solid education in the core fields and four related fields (urban governance, urban infrastructure management, health risk management, and disaster risk management). The study of these topics will equip researchers and engineers with the ability to apply their knowledge in an integrated manner toward ensuring urban human security, as well as the ability to promote these technologies. Specifically, we aim to promote researchers and engineers who possess sophisticated creativity (in addition to having a wide range of knowledge, the ability to go beyond the boundaries of the existing specialized fields), internationality (the ability to present and debate research in English, perform education and research activity in foreign countries, ability to build international human networks), and independence (the ability to plan research, leadership in education and research, ability to secure research funds, and problem-solving ability in the field). To achieve the educational objectives above, we designate “Human Security Engineering” as the compulsory subject for all students and include English instruction in our courses. Additionally, to enable students at the overseas campuses to participate in the program, we will also provide intensive lectures at the sites through a remote lecturing system and e-Learning system.

## **(3) HSE Program Students**

The following four types of students will be admitted to the program:

- a) The doctoral student who entered the Graduate School of Engineering (three departments related to global engineering, Department of Architecture and Architectural Engineering) and is assigned to the Integrated Engineering Course, Human Security Engineering Field (Doctoral Course: 3rd Year).

- b) The doctoral student of the Graduate School of Global Environmental Studies who selected the “Human Security Engineering Advanced Course.”
- c) The doctoral student of the Graduate School of Informatics who submits the “Human Security Engineering Education Program – Course Application” to the Director of Human Security Engineering Field and is allowed to take the course by the Director.

#### (4) HSE Program: Subjects Available for Study

Grouping	Code	Subject	Teacher(s) in Charge	Hrs/Week		Credits	Course Specification
				1st Semester	2nd Semester		
	10X301	Human Security Engineering	Matsuoka, Monnai, Ohtsu, Tanaka(Hiro), Tatano, Kobayashi, Shaw	2		2	Compulsory Core subject
Group A	10X303	Urban Governance	Monnai, Kanki, Shaw, Furusaka	2		2	Core subject Major/minor subject
Group A	10X305	Lectures on Urban Governance 1	Assorted Instructors	2		2	Major/minor subject
Group A	10X307	Lectures on Urban Governance 2	Assorted Instructors		2	2	Major/minor subject
Group A	733101	Global Environmental Law and Policy	Assorted Instructors	2		2	(*)Major/minor subject
Group B	10X311	Urban Infrastructure Management	Ohtsu	2		2	Core subject Major/minor subject
Group B	10X315	Lectures on Urban Infrastructure Management 1	Assorted Instructors	2		2	Major/minor subject
Group B	10X317	Lectures on Urban Infrastructure Management 2	Assorted Instructors		2	2	Major/minor subject
Group B	733102	Global Environmental Economics	Mori, Liu	2		2	(*)Major/minor subject
Group C	10X321	Lectures on Environmental Risk Management Leader	Fujii, Tanaka, Shimizu	2		2	Core subject
Group C	10X323	Lectures on Environmental Risk Management 1	Assorted Instructors	2		2	Major/minor subject
Group C	10X325	Lectures on Environmental Risk Management 2	Assorted Instructors		2	2	Major/minor subject
Group C	10X327	Environmental Engineering for Asia	Fujii, Tanaka(Hiro), Shimizu, Matsuoka, Takaoka, Kurata		2	2	(*)Major/minor subject
Group C	733103	Management of Global Resources and Ecosystems	Funakawa, Shibata, Yamashita	2		2	(*)Major/minor subject
Group C	733104	Environmental Ethics and Environmental Education	Singer	2		2	(*)Major/minor subject
Group D	10X333	Disaster Risk Management	Tatano, Yokomatsu	2		2	Core subject Major/minor subject
Group D	10X335	Lectures on Disaster Risk Management 1	Assorted Instructors	2		2	Major/minor subject
Group D	10X337	Lectures on Disaster Risk Management 2	Assorted Instructors		2	2	Major/minor subject
	10X339	Internship for Human Security Engineering (Short)				2	ORT subject
	10X441	Advanced Capstone Project (Long)				8	ORT subject
		Rsearch Paper (Doctoral)					Compulsory

#### Note:

- 1) All lectures are conducted in English. The outline of each subject is described in p.7-11
- 2) Prepare the course plan of the subjects by the following procedure and submit the plan to your main supervisor and sub-supervisor to obtain their approval at school entry. Although the course plan can be modified when proceeding to the next grade, the approvals to the supervisor(s) must be obtained. The supervisor cannot modify the additional conditions.
- 3) Graduate-level subjects not included in this table may be considered as corresponding and equivalent to minor subjects under the instruction of your supervisor(s) for up to 4 credits.
- 4) If you will register (\*)subjects, you must inform the Graduate School of Global Environmental Studies(GSGES) Office.

**(5) Program Accreditation**

Course	Subject	Number of Credits Required for Completion
Doctoral Students Enrolled in the Integrated Engineering Course, HSE Field	Core subject (HSE)	2 or more
	Core subject	2 or more
	ORT subject	2 or more
Doctoral Students of the Graduate School of Informatics	Major subject	0 or more
	Minor subject	0 or more
	Other subject	To be taken obtaining the approval of the supervisor as needed
	Total	10 or more
Doctoral Students of the Graduate School of Global Environmental Studies Who Selected the "Human Security Engineering Advanced Course"	Refer to guidance note issued by the Graduate School of Global Environmental Studies(GSGES) Contact Educational Coordinator of GSGES	

**Note:**

- 1) To complete this course or to be certified as an “HSE Program Graduate,” the number of credits specified for each subject classification, as well as the total number of credits, must be achieved.
- 2) When a substitute condition is added other than the above, when preparing the course table, the substitute condition must be satisfied.
- 3) Field completion requirement for a) doctoral students enrolled in the Integrated Engineering Course, Human Security Engineering Field.

Students who proceed to the Integrated Engineering Course, Human Security Engineering Field, will complete the doctoral course by fulfilling the completion requirements of this field, rather than those of the department to which he/she belongs. Upon completion of the field, the student will be certified as a “Human Security Engineering Education Program Graduate” and will be conferred the program certificate aside from the doctoral degree certificate.

1. Students who have achieved 2 credits in the compulsory core subject “Human Security Engineering.”
2. Students who have achieved at least 1 subject/2 credits from the core subjects of Groups A to D (Urban Governance, Urban Infrastructure Management, Lecture on Environmental Risk Management Leader, Disaster Risk Management).
3. Students who have achieved at least 2 credits of the ORT subjects.
4. Students who have achieved at least 10 credits from the HSE Program subject table above. However, the subjects of the graduate school which are not included in the HSE Program subjects table above can be certified as the required credits for the completion under the supervisor(s) only if the total number of the credits is equal to or less than 4.
5. Students who have completed the doctoral research in accordance with the spirit of the HSE Program.



## (6) Timetable of FY2013 HSE Program

First Semester (8 Apr. 2012 to 29 Jul. 2013)

	Mon	Tue	Wed	Thu	Fri
1 8:45 - 10:15	Lecture on Urban Infrastructure Management 1 <i>[tailor-made lecture]</i>	Lectures on Disaster Risk Management 1 <i>[tailor-made lecture]</i>		Lectures on Health Risk Management 1 <i>[tailor-made lecture]</i>	Lectures on Urban Governance 1 <i>[tailor-made lecture]</i>
2 10:30 - 12:00	Global Environmental Economics (Mori, Liu) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus</i>		Global Environmental Law and Policy (Assorted Instructors) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus</i>		Management of Global Resources and Ecosystems (Funakawa/Shibata/Yamashita) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus</i>
3 13:00 - 14:30	Urban Infrastructure Management (Ohtsu) <i>Lecture Studio(117), Katsura Campus</i>				Urban Governance (Monnai/Kanki/Shaw/Furusaka) <i>Lecture Room 3(172), Katsura Campus</i>
4 14:45 - 16:15			Disaster Risk Management (Tatano/Yokomatsu) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus and Telecommunication Lecture Studio(171), Katsura Campus</i>		
5 16:30 - 18:00	Environmental Engineering for Asia (Fuji/Shimizu/Tanaka) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus and Telecommunication Lecture Studio(171), Katsura Campus</i>	Environmental Ethics and Environmental Education (Singer) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus</i>	Human Security Engineering (Matsuoka/Monnai/Ohtsu/Tanaka/Tatano/Kobayashi/Shaw) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus and Telecommunication Lecture Studio(171), Katsura Campus</i>	Environmental Risk Management Leader (Fuji/Tanaka/Shimizu) <i>Main Lecture Room, Research Bldg. No.5, Yoshida Campus and Telecommunication Lecture Studio(171), Katsura Campus</i>	

Second Semester (1 Oct. 2013 to 29 Jan. 2014)

	Mon	Tue	Wed	Thu	Fri
<b>1</b> <b>8:45</b> - <b>10:15</b>	Lecture on Urban Infrastructure Management 2  <i>[tailor-made lecture]</i>	Lectures on Disaster Risk Management 2  <i>[tailor-made lecture]</i>		Lectures on Health Risk Management 2  <i>[tailor-made lecture]</i>	Lectures on Urban Governance 2  <i>[tailor-made lecture]</i>
<b>2</b> <b>10:30</b> - <b>12:00</b>					
<b>3</b> <b>13:00</b> - <b>14:30</b>					
<b>4</b> <b>14:45</b> - <b>16:15</b>					
<b>5</b> <b>16:30</b> - <b>18:00</b>	Environmental Engineering for Asia (Matsuoka/Takaoka/ Kurata) <i>Main Lecture Room,                      Research Bldg. No.5,                      Yoshida Campus and                      Telecommunication Lecture                      Studio(171),                      Katsura Campus</i>				

## **(7) Course Descriptions for Human Security Engineering Education Program**

### **Human Security Engineering [Compulsory Core subject]**

MATSUOKA Yuzuru (GSE), MONNAI Teruyuki (GSE), OHTSU Hiroyasu (GSE), TANAKA Hiroaki (GSE), KOBAYASHI Kiyoshi (GSE), YONEDA Minoru (GSE), TATANO Hirokazu (DPRI), SHAW Rajib (GSGES).

First Semester: Wednesday, 16:30–18:00

This course will provide a comprehensive overview of human security engineering, a system of technologies for designing and managing cities that enable inhabitants to live under better public health conditions, and also to live free from potential threats of large-scale disasters and environmental destruction. The Millennium Development Goals will be evaluated from the viewpoints of four existing fields: urban governance, urban infrastructure management, health risk management, and disaster risk management. Furthermore, we will provide lectures that explore the relationships between the four existing fields.

### **Urban Governance [Core subject]**

MONNAI Teruyuki (GSE), KANKI Kiyoko (GSE), SHAW Rajib (GSGES), FURUSAKA Shuzo (GSE).

First Semester: Friday, 13:00–14:30

The key to raising the human quality of life lies in well-designed cities that make good use of human and physical resources. In this course, we will explore the methodology of urban governance, including bottom-up decision making based on collaboration of various actors, in order to solve the multi-dimensional human security problems of safety, health, convenience, comfort, amenity, and sustainability. Moreover, multiple lecturers will provide interesting topics of urban governance, with concrete problems for students to discuss.

### **Lectures on Urban Governance 1**

Assorted Instructors

Tailor-made Lecture

This class will cover the hot topics on urban governance within human security engineering. Instructors will present current literature and expect students to develop arguments.

### **Lectures on Urban Governance 2**

Assorted Instructors

Tailor-made Lecture

In this class, research topics related to urban governance within human security engineering will be assigned to students to enable them to solve human security problems. The students are required to

review the latest or important fundamental papers, including related areas, and debate ideas with their teachers.

### **Global Environmental Law and Policy**

Assorted Instructors

First Semester: Wednesday, 10:30–12:00

In this class, we will examine the legal and institutional framework of global environmental policy. This will be discussed in terms of political economics, examining the role of governments, international organizations, industry, and NGOs engaged in the formation of the policy. The class will identify the ways and means to create global benefits from environmental preservation and sustainable development.

### **Urban Infrastructure Management [Core subject]**

OHTSU Hiroyasu (GSE)

First Semester: Monday, 13:00–14:30

This course aims to provide interdisciplinary knowledge on how urban infrastructure is managed, not only from an economic perspective but also in accordance with human security engineering. The lectures will consist of the following topics: (1) Urban Infrastructure Asset Management, (2) Urban Environment Accounting System, (3) Urban Energy Supply Management, (4) Urban Food/Water Supply Management, and (5) Urban Transport/Logistics Management.

### **Lectures on Urban Infrastructure Management 1**

Assorted Instructors

Tailor-made Lecture

This class aims to deepen the understanding on urban infrastructure management, especially related to human security engineering. The class will present and discuss hot topics and related literatures on urban infrastructure management.

### **Lectures on Urban Infrastructure Management 2**

Assorted Instructors

Tailor-made Lecture

In this class, the Assorted Instructors will provide lectures on the current situation and future prospect of the challenges of urban infrastructure management related to urban human security engineering. The aim of this class is to develop advanced and practical research capability of the students. To achieve this, they will be assigned with research subjects and will present and discuss their findings.

### **Global Environmental Economics**

MORI Akihisa (GSGES) and LIU Deqiang (Economics)

First Semester: Monday, 10:30–12:00

We will give lectures on the theoretical basis and policy framework of sustainable development from the viewpoint of environmental/ecological economics.

- How to rebuild relations between people and nature, while taking environmental constraints, material cycling, efficiency, equity, and sustainability into account.
- Socio-economic underpinnings of global environmental problems and policies and measures for dealing with them.
- Evaluating the environmental and socio-economic impacts from current economic growth, with its attendant increase in energy and resource consumption. Then we will discuss management system for local and global common-pool resources and/or environmental assets, financing of sustainable development, in order to realize sustainable society.

### **Lecture on Environmental Risk Management Leader [Core subject]**

FUJII Shigeo (GSGES), SHIMIZU Yoshihisa (GSE), TANAKA Hiroaki (GSE)

First Semester: Thursday, 16:30–18:00

In this class, we will give lectures on the theories of risk analysis, risk identification, risk assessment, risk evaluation, and risk reduction for human health and ecology. The main purpose of this lecture is to provide the students with the basic knowledge required of environmental leaders who can solve environmental issues practically as they occur in developing countries. We will review several international environmental projects as case studies.

### **Lectures on Health Risk Management 1**

Assorted Instructors

Tailor-made Lecture

This class will provide an overview of health risk management, especially as they relate to human security engineering. The class will present and discuss the hot topics and related literatures on health risk management.

### **Lectures on Health Risk Management 2**

Assorted Instructors

Tailor-made Lecture

This class will provide lectures on the current situation and future challenges of human health risk management from the viewpoint of urban human security engineering. The aim of this class is to

develop the student's research capability. Students will be assigned academic and practical research subjects, and will then present and discuss their findings.

### **Environmental Engineering for Asia**

First Semester: FUJII Shigeo (GSGES), TANAKA Hiroaki (GSE), SHIMIZU Yoshihisa (HSE)

Second Semester: FUJII Shigeo (GSGES), MATSUOKA Yuzuru (GSE), TAKAOKA Masaki (GSE), KURATA Gakuji (GSE), SHIMIZU Yoshihisa (GSE)

First Semester: Monday, 16:30–18:00

Second Semester: Monday, 16:30–18:00

This course will cover the fundamental knowledge, latest technologies, regional characteristics, and applied examples of environmental engineering problems related to atmosphere and waste products in Asia. The course will be taught and discussed in English. This course will also provide remote learning (a hybrid system using recorded videos and teleconference system [VCS]) with the teachers and graduate students of Tsinghua University and University of Malaya to improve English ability and internationality through the lecture, comprehensive discussion, etc., on the environmental field. Even if you take “New Environmental Engineering 1, Advanced” at First Semester, you can get the credit of “Environmental Engineering for Asia”.

### **Management of Global Resources and Ecosystems**

FUNAKAWA Shinya (GSGES), SHIBATA Shozo (GSGES), YAMASHITA Yo (GSGES)

First Semester: Friday, 10:30–12:00

Natural resources can be recycled sustainably by maintaining the environment. Ecosystems can be kept healthy so that organisms can reproduce effectively. This class outlines the characteristics of material circulation in various ecosystems and the link mechanism between ecosystems. We will also consider methods for using natural resources in harmony with ecosystems, after reviewing examples of deteriorated ecosystems and their rehabilitation throughout the world.

### **Environmental Ethics and Environmental Education**

Jane SINGER (GSGES)

First Semester: Tuesday, 16:30–18:00

Ethical approaches and informed decision making are essential for solving environmental problems, especially to facilitate consensus building among conflicting stakeholders. This course covers prominent schools of thought in the field of environmental ethics, applied ethics in environmental stewardship, and basic principles of environmental education.

### **Disaster Risk Management [Core subject]**

TATANO Hirokazu (DPRI), YOKOMATSU Muneta (DPRI)

First Semester: Wednesday, 14:45–16:15

Natural disasters have low frequencies but high impacts. It is very important to make an integrated risk management plan that consists of various countermeasures such as prevention, mitigation, transfer, and preparedness. This class will present economic approaches to natural disaster risk management and designing appropriate countermeasures.

### **Lectures on Disaster Risk Management 1**

Assorted Instructors

Tailor-made Lecture

This class aims provide an overview of disaster risk management, with an emphasis on human security problems. The class will present and discuss hot topics and related literatures on disaster risk management.

### **Lectures on Disaster Risk Management 2**

Assorted Instructors

Tailor-made Lecture

This class will provide lectures on the current situation and future challenges of disaster risk management from the viewpoint of urban human security engineering. The aim of this class is to develop advanced and practical research capability of the students. To achieve this, they will be assigned with research subjects and will present and discuss their findings.

### **Internship for Human Security Engineering**

Contact your supervisor(s) to inquire

The internship aims to develop practical capabilities to secure urban human security, in addition to acquiring expert knowledge and the ability to develop new research fields by carrying out research activity related to human security engineering and presenting research results at international conferences. Specific examples include participating in internships domestically or abroad at companies or research institutes which conduct the operation of international projects, conducting field surveys, and attending academic conferences.

### **Advanced Capstone Project**

Contact your supervisor(s) to inquire

This class aims to develop the abilities of international collaboration, field investigation, and on-site planning/problem solving through long-term investigation/research activities related to human security engineering with thorough hands-on policy in foreign countries. Specific examples include

field research at overseas centers and participation in international projects overseas. As a rule, participants will stay in the field for 2 months or more.

**(8) Example Course Plans**

1) A student of the field of Urban Infrastructure Management

Course Specification	Code	Subject	Credits	1st Semester	2nd Semester
Compulsory Core subject	10X301	Human Security Engineering	2	○	
Core subject Major/minor subject	10X311	Urban Infrastructure Management	2	○	
ORT subject	10X339	Internship for Human Security Engineering (Short)	2	○	○
	or				
	10X441	Advanced Capstone Project (Long)	8	○	○
Core subject Major/minor subject	10X333	Disaster Risk Management	2	○	
Major/minor subject	10X317	Lectures on Urban Infrastructure Management 2	2		○

2) A student of the field of Health Risk Management

Course Specification	Code	Subject	Credits	1st Semester	2nd Semester
Compulsory Core subject	10X301	Human Security Engineering	2	○	
Core subject	10X321	Lectures on Environmental Risk Management Leader	2	○	
Major/minor subject	10X323	Lectures on Environmental Risk Management 1	2	○	
ORT subject	10X339	Internship for Human Security Engineering (Short)	2	○	○
	or				
	10X441	Advanced Capstone Project (Long)	8	○	○
Major/minor subject	10X327	Environmental Engineering for Asia	2		○



## **(9) ORT subjects**

“Internship for Human Security Engineering” (short-term internship: 2 credits) and “Advanced Capstone Projects” (long-term internship: 8 credits) are available for ORT subjects in HSE Program. To conduct each ORT subject, you would contact your supervisor(s) to inquire and make plans for internships with your supervisor’s advice and suggestion.

### 1) Internship for Human Security Engineering

Internship for Human Security Engineering normally requires 2 weeks (10 days) of on-site training or on-the-research training. Examples of these internship activities as follows:

- (a) Presentation at international conference followed by information collection relevant to your doctoral research at laboratories of foreign universities and authorities.
- (b) Normal internship activities at private companies to study the state of the cutting-edge technologies or practical business.

### 2) Advanced Capstone Projects

Advanced Capstone Projects require more than 2 months on-site or research training.

Examples as follows:

- (a) Fieldwork at overseas base for your doctoral research.
- (b) Working as a visiting researcher at agencies/organizations related to Human Security Engineering.

## NOTICE OF INTERNSHIP

- 1) Submit the “Kyoto University HSE Program Portfolio and Registration Card” on which ORT subjects are filled out.
- 2) Contact your supervisor and make plans for internship with your supervisor’s advice.
- 3) Submit the Notice (HSE-004, or HSE-005) to HSE Office([kyomu\\_gcoe@hse.gcoe.kyoto-u.ac.jp](mailto:kyomu_gcoe@hse.gcoe.kyoto-u.ac.jp)).  
You could access our website(<http://hse.gcoe.kyoto-u.ac.jp>) and download these template files.
- 4) Submit the report on internship to your supervisor and HSE office.
- 5) As ORT subjects are all-year ones, you can get the credit at annual end-of-classes.

## **(10) Contact**

Education Coordinator of Human Security Engineering Education Program

Associate Professor SHIMADA Yoko

C1-3-464, Katsura Campus C Cluster

Phone: 075-383-3357

E-mail: [kyomu\\_gcoe@hse.gcoe.kyoto-u.ac.jp](mailto:kyomu_gcoe@hse.gcoe.kyoto-u.ac.jp)

Website: <http://hse.gcoe.kyoto-u.ac.jp>

**Kyoto University Human Security Engineering Education Program Portfolio**  
(人間安全保障工学分野ポートフォリオ)

Date of Entrance 入学年月	Affiliation 所属専攻	Student ID 学生番号	Nationality 国籍
Entered in . . .20			

Name 氏名	Laboratory 研究室名	Supervisor 主指導教員	Sub-supervisor(Optional) 副指導教員
	TEL (Ext.):		

Present address 現住所	TEL (Fixed)	
	TEL (Cell)	
	E-mail	

## (1) Course Plan for the HSE Program (履修計画)

科目区分名	Subject Code 科目コード	Subject Name 科目名	Credits 単位数	Academic year 履修学年	Semester	
					1st	2nd
Compulsory Core Subject 必修, コア		Human Security Engineering (人間安全保障工学概論)	2	2013	○	
Core Subject コア						
ORT						

Supervisor's signature \_\_\_\_\_

(主指導教員印またはサイン)

(2) Reason for application for the HSE Program

(3) Doctoral research plan

Title \_\_\_\_\_

Research summary/plan

(4) Position of the doctoral research theme filled in this application in Human Security Engineering

(5) HSE Program and Research Condition/Outcome

Fill out the subjects, which you have taken, and your doctoral research result/outcome (published papers etc.) in each semester.

2013 First Semester

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2013 Second Semester

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2014 First Semester

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2014 Second Semester

A large, empty rectangular box with a thin black border, intended for a student's response to the question above.

2015 First Semester

A large, empty rectangular box with a thin black border, intended for a student's response to the question above.

2015 Second Semester

A large, empty rectangular box with a thin black border, intended for a student's response to the question above.

## 【人間安全保障工学分野】

**2013**  
**Human Security Engineering**  
**Registration Card**

**First**  
**Doctor Course**

Affiliation 専攻名		Student ID 学生番号								
Entrance Year 入学年		Name 学生氏名								

Registration	Code (科目コード)	Subject (科目名)	Teacher(s) in Charge (担当教員名)
	10X301	Human Security Engineering (人間安全保障工学概論)	Y. Matsuoka, Monnai, Ohtsu, H. Tanaka, Tatano, Kobayash, 松岡(謙), 門内, 大津, 田中(宏), 多々納, 小林(潔)
	10X303	Urban Governance (都市ガバナンス論)	Monnai, Kanki, Shaw, Furusaka 門内, 神吉, ショウ, 古阪
	10X311	Urban Infrastructure Management (都市基盤マネジメント論)	Ohtsu 大津
	10X321	Lectures on Environmental Risk Management Leader (環境リスク管理リーダー論)	Tanaka, Shimizu, S. Fujii 田中(宏), 清水, 藤井(滋)
	10X333	Disaster Risk Management (災害リスク管理論)	Tatano, Yokomatsu 多々納, 横松
	10X339	Internship for Human Security Engineering (Short) (人間安全保障工学インターンシップ)	
	10X441	Advanced Capstone Project (Long) (アドバンスド・キャップストーン・プロジェクト)	

1. Please fill in the registration column with "O mark" (in the appearance of circle) for the subject(s) which you would register in this semester

Supervisor's  
Signature  
指導教員印

【人間安全保障工学分野】

2013  
Human Security  
Engineering  
Registration Card  
Second  
Doctor  
Course

Affiliation 専攻名		Student ID 学生番号							
Entrance Year 入学年		Name 学生氏名							

Registration	Code (科目コード)	Subject (科目名)	Teacher(s) in Charge (担当教員名)
	10X327	Environmental Engineering for Asia (アジア環境工学)	Y. Matsuoka, Y. Shimizu, S. Fujii, M. Takaoka, G. Kurata 松岡(謙), 清水, 藤井(滋), 高岡, 倉田

Supervisor's Signature 指導教員印
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1. Please fill in the registration column with "O mark" ( in the appearance of circle) for the subject(s) which you would register in this semester

# 誓約書

人間安全保障工学分野 分野長 殿

人間安全保障工学分野の講義の一環としてインターンシップあるいは研究調査のため海外渡航する場合は、出国から帰国までの期間中における事故・疾病等については、私自らの責任として対処することを誓約します。

平成 年 月 日

(渡航者)

所 属 専 攻 \_\_\_\_\_.

住 所 \_\_\_\_\_.

氏 名 \_\_\_\_\_ (印).

印またはサイン