

MASTER'S PROGRAM OF MEDICAL SCIENCES
INTERNATIONAL COURSE FOR
"PUBLIC HEALTH SCIENCES FOR HUMAN SECURITY"
Second Selection

Spring 2013/Fall 2013



TOHOKU UNIVERSITY
GRADUATE SCHOOL OF MEDICINE

●If you have any questions about this course, please contact us.

Tohoku University Graduate School of Medicine, Graduate Academic Affairs Section

Fax Number : +81 (0) 22 717 8021

E-mail: HStohoku-jimu@med.tohoku.ac.jp

●Admission Information & Application Forms can be downloaded

from: <http://human-security.jp/health>



Tohoku University Graduate School of Medicine

Tohoku University was founded in 1907 as the third imperial university, during the period when Japan had begun to transform itself into a modernized society. Since then, it has played a leading role in Japan in both research and education with a mission to search for truth, create and disseminate human knowledge, thereby contributing to the realization of a society where humanity can live in peace and dignity.

The university consists of 10 undergraduate schools, 15 graduate schools, 5 research institutes and a number of other institutes for education and research. Today it has nearly 5,700 faculty members, and about 18,500 students in both undergraduate and graduate schools, including 1,300 international students.

Throughout the last century, the university upheld the following three principles: "Research First," "Open-Door," and "Practice-Oriented Research and Education," demonstrating that the members of this institution have been keenly aware that internationalization in research and education is an essential condition for achieving our mission and aims.

In November of 2004, Tohoku University declared that it is striving for global excellence under the slogan "Tohoku University, Creating Global Excellence" The University is making every effort to pursue this goal, and at the same time, through this effort, to contribute to social advancement and the realization of wellbeing for all of humanity.

Tohoku University is located in Sendai city, which is the functional center of the Tohoku region, the northern part of the main land of Japan. Tohoku is surrounded by many beautiful woodland areas which bring us the wonder of the four seasons, and displays both the nature and the culture of Japan. Sendai itself is a historic port city, with a population of one million, close to the mountains and hot springs, and known for its bounty of the sea and land.



(Map provided by Public Relations Division of Miyagi Pref.)



(Photos provided by Tourism Division of Miyagi Pref.)

Tohoku University, Graduate School of Medicine

Application Information for Master's Program

International Course for "Public Health Sciences for Human Security"

(2-year course)
Academic Year 2013

The Tohoku University, Graduate School of Medicine's Master's Program – International Course for "Public Health Sciences for Human Security" – is seeking students according to the following guidelines:

I. Introduction; the Tohoku University Joint International Program on Human Security

The mission of Tohoku University is to search for truth and create and disseminate human knowledge, thereby contributing to a society where humanity can live in peace and dignity. More specifically, as an inclusive university, bringing together a collaborative and mutually stimulating mix of academic fields, our aims are to honor the wisdom of the world throughout history, identify current and future agendas for scholarship, share our knowledge and discoveries with the community and the world, and actively cultivate individuals with the desire and capability to contribute to humanity.

To achieve its mission, Tohoku University provides an international and interdisciplinary Educational program on "Human Security" by collaboration with the Graduate School of Medicine, the Graduate School of Environmental Studies, Graduate School of Agricultural Science, and Graduate School of International Cultural Studies. All courses in the Program are lectured in English.

After the cold war ceased in the early 1990's, the concept of "Human Security" became the primary common concern of international society. The new concept addresses the issues of security of "people," instead of "nation," such as illness, disasters, outbreaks of infectious diseases, environmental hazards, poverty, conflicts and so forth, and recognizes that all people of the world have the right to live in peace and free from fear and want. Most of the insecure events and situations in the 21st century are complex and caused by multiple factors. Their solutions might require new leaders, both in research and in practice, who carry broader perspectives based on interdisciplinary views and scientific knowledge.

The joint program currently involves four disciplines as follows:

Public Health with focus on preventable death events, as well as social systems in their background, such as infectious diseases, chemical hazards, disasters, patient safety, etc. **Environment** with focus on the method of settlement and influence of environmental changes in water resources, forest, and climate on the individual and social lives, caused by natural phenomenon and human activities. **Food & Agriculture** with focus on individual security for food, for example, security of food supply, economic development and food diversification, quality of food, and administration of food resources and nationalism. **Society** with focus on the topics of individual social security problems on the level of daily lives affected by human rights, gender, conflict, refugees, and researching how social security would be established in the changing situation of environments, surrounding states and citizens.

Students apply for one of the above four Graduate Schools which will confer respective academic degrees when they satisfy their requirements. The Graduate School of Medicine provides International Course for "Public Health Sciences for Human Security" for the degree of "Master of Medical Sciences."



II. Objective of International Course for "Public Health Sciences for Human Security"

The International Course for "Public Health Sciences for Human Security" aims to develop researchers and public health leaders in Asia and the rest of international society who will contribute to the realization of human security by taking leadership in the solutions of security problems in public health.

III. Description of the Program

1. Degree

The Master's program is two years long. The student will be given the degree of "Master of Medical Sciences" if he/she successfully passes the required subjects and obtains 30 or more credits, defends his/her master's thesis, and passes the final examination.

Students who have successfully completed the master's program can apply for the doctoral program. After completion of the doctoral program, the students will receive certification as a Doctor of Philosophy (Ph.D) in Medicine.

2. Academic period

The enrollment date for the program will be either on April 1 (or on October 1). The academic year consists of two semesters.

3. Curriculum

All courses in the Program are lectured in English.

A minimum of 30 credits is required for the Master's degree.

(This is a prearrangement. It might be changed after the enrollment.)

(1) Compulsory courses: 10 courses (26 credits)

Subjects of Compulsory courses : 26 credits

- a) Social Support for the Health of Aging Population (2)
- b) Development Economics (2)
- c) Introduction of Infectious Diseases- Changes of Environment and Infectious Diseases-(2)
- d) Communicable disease Outbreak and Response (2)
- e) Disaster Preparedness for Public Health (2)
- f) Environmental Security and Energy Security (2)
- g) Special Lectures on Human Security A (1)
- h) Special Lectures on Human Security B (1)
- i) Consumable Resources and Social Conflicts (2)
- j) Seminars and Master's thesis*¹ (10)

*¹ Students must take regular seminars which are provided by their supervisors, and write and defend their Master's dissertation in the 2nd year under their supervisor's instruction.

(2) Elective courses*² : 2 courses (4 or more credits)

Subjects of Elective courses: more than 4 credits

*² Subjects should be selected upon advice from their supervisor

- a) Infectious Disease Epidemiology (2)
- b) Hydro-Environmental Studies (2)
- c) Food Economics (2)
- d) Human Security and Global Society (2)

4. Research Themes

Students have to take seminars regularly which are provided by their supervisors, and write and defend the Master's dissertation on the 2nd year under the supervisor's instruction. Students can choose the supervisor of their Master's thesis from the three divisions listed below:

Research Theme	Supervisor in Charge	Division	URL
Epidemiology and control of viral infections including emerging diseases	Prof. Hitoshi Oshitani	Division of Virology	http://www.virology.med.tohoku.ac.jp/index-en.html
-Basic HIV researches for antivirals, drug resistance, and vaccines -AIDS/TB co-infection will be also studied in collaboration with South-Africa.	Prof. Toshio Hattori	Division of Emerging Infectious Diseases	http://www.med.tohoku.ac.jp/english/org/medical/27/index.html
-Toward effective therapy of cancer: molecular analysis of clinically relevant radioresistant cells - How to protect people from nuclear and radiation accidents.	Prof. Manabu Fukumoto	Division of Pathology	http://www.idac.tohoku.ac.jp/dep/path/index_e.html

5. Admission/Tuition Fee Exemptions

(1) Exemption of Admission Fee

Students in severe financial difficulties can apply for exemption from payment of the admission fee.

(2) Exemption of Tuition Fee

Students recognized as being in severe financial difficulties can apply for tuition fee exemption.

※After applying, a strict screening by Tohoku University will determine whether it is approved (100% or 50% or 1/3 exemption) or disapproved.

6. Student Accident and Disaster Insurance

This insurance covers damages or injuries resulting from experiments, clinical research, school activities or extracurricular activities. The insurance costs 2,100 yen for two years. (The amount of money may change.)

IV. Application Procedures

1. Positions available: up to 6

2. Application Requirements

This requirement applies for those non-Japanese / Japanese people live in outside of Japan.

For those who live in Japan are able to apply through application guideline. Please refer to Tohoku University School of Medicine webpage (URL: <http://www.med.tohoku.ac.jp/english/post-grad/index.html>)

Applicants must satisfy at least one of the following conditions (1)-(5) to be eligible to apply for the master's program. Proficiency in English is required as stated in (6).

All documents including application must arrive at office before January 11, 2013 (Japan time).

(1) Those who have graduated from a university in Japan or expect to graduate by the end of March 2013 (or September 2013), and who hold a Bachelor's degree awarded by the National Institution for Academic Degrees and University Evaluation in Japan or will receive one by the end of March 2013 (or September 2013).

(2) Those who have completed 16 years of schooling outside Japan or expect to complete 16 years of schooling by the end of March 2013 (or September 2013).

Those whose conditions do not meet with either of the above ((1),(2)) are eligible for application only when their academic careers are examined and approved by the prescreening committee which is scheduled for beginning of January, 2013.

For this reason, for those who meet with below (3)-(5), their application forms and etc. must reach the

Office from November 26, 2012 to January 4, 2013 (Japan time). If they arrive after that date, the application forms will not be accepted. In that case, we will return you the application forms and fees.

- (3) Those who have been enrolled in a graduate school of other university, and are recognized as being eligible to join our master's program in terms of their academic ability.
- (4) For applicants who have completed 15 years of schooling as of the enrollment date:
- Those who have been at a university/college for 3 or more years in Japan, and at the same time who are recognized as having achieved an excellent academic record by the graduate school, or who expect to be there for 3 or more years by the end of March 2013 (September 2013) and be recognized as achieving an excellent academic record by the graduate school.
 - Those who have completed 15 years of schooling outside Japan, and at the same time who are recognized as having achieved an excellent academic record by the graduate school, or who expect to complete the 15 years of schooling by the end of March 2013 (September 2013) and be recognized as achieving an excellent academic record by the graduate school.
- (5) Those who are 22 years or older as of the enrollment date and recognized by the graduate school as eligible to apply to the Master's program as being equivalent to a university/college graduate in terms of their academic ability.
- Note: Please attach documents to prove your academic ability such as publications and certificates, etc.
- (6) Those who are proficient in English; In the order of a TOEFL score 540 or equivalent by other internationally recognized examinations.

PLEASE NOTE: The information written in parentheses is for the applicants who apply for Fall 2013.

3. Application Procedure

(1) Application forms

The prescribed application forms can be downloaded from the following website:

URL: <http://human-security.jp/health/>

(2) Application Period & Schedule

- a) For those non-Japanese/Japanese people live in outside of Japan: We seek students who wish to apply for admission to this Master's Program based on the schedule below.
The screening is conducted once or twice an academic year, for both the spring and fall enrollment of the next academic year.

Admission for Academic Year 2013(April, October)	
Application Period	November 26(Mon) , 2012- January 11 (Fri), 2013 (Japan time) Those who meet the requirements 2.(3)-(5) need prescreening. Application must arrive from November 26, 2012 to January 4, 2013 (Japan time).
Document Prescreening	Beginning of January, 2013
Telephone Interview	January 23 (Wed), 2013 –January 30 (Wed), 2013
Announcement of the results	February 14 (Thu), 2013
Enrollment	April 1 (Mon), 2013 or October 1 (Tue), 2013

- b) For those who live in Japan: Follow the same procedure and schedule as the Medical Sciences Master's Program.
(Please see the following website. URL:<http://www.med.tohoku.ac.jp/english/post-grad/index.html>)

(3) Submitting Application

- We **ONLY** accept applications that arrive during the above mentioned application period (excluding Saturdays, Sundays and National Holidays) between the hours of 9:00 am to 4:30 pm.
- All applications must arrive by the deadline of the application period. Please note that these dates are Japan time.
- Applications sent by mail must be posted by **registered express mail**.
- Applicants must submit all application documents (ref. the following (4) Application Documents) and the **application fee of 30,000** yen to the Graduate Academic Affairs Section of Graduate School of Medicine at the address indicated below.

There is **NO** prescribed application envelope.

Tohoku University Graduate School of Medicine, Graduate Academic Affairs Section, 2-1, Seiryomachi, Aoba-ku, Sendai, 980-8575, Japan
Mail: HStohoku-jimu@med.tohoku.ac.jp

(4) Application Documents

Documents

Download:

1	Application form and C.V. (prescribed form style No.1-1,1-2) One 4 cm x 3 cm photo must be attached in the space provided. The photo should be taken showing the upper half of the body without a hat/cap within 3 months of application, and should have the applicant's name and nationality written on the back.
2	Official academic transcript (submit one of the documents listed below) Original ONLY. Photocopies or facsimiles are not acceptable. 1) Official academic transcripts for undergraduate courses from the president or the dean of the university where the applicant graduated (properly sealed). 2) Official academic transcript from any other higher educational institutions (properly sealed).
3	Certificate of graduation or expected graduation documents (submit one of the documents listed below) Original ONLY. Photocopies or facsimiles are not acceptable. 1) Certificate of graduation or expected graduation from a university. 2) Certificate of completion from any other higher educational institutions.
4	Degree certificate or certificate of expected degree award from a university. Photocopy is acceptable.
5	Certificate of Health (prescribed form style No.2) The certificate of health should be filled out by a physician within 6 months of application. Other forms can be used providing that all items on the prescribed form are covered.
6	Official Score Certificate of Internationally Recognized English Proficiency Test Original copy or photocopy of the certificate which proves the TOEFL score or other internationally recognized English proficiency examinations.
7	Recommendation Form (prescribed form style No.3-1, 3-2) & Letters of recommendation from 2 people 1) An academic adviser, an appropriate faculty member from the same or higher level of undergraduate program, a graduate school academic supervisor or a person who has full knowledge of applicant's profession. 2) At least one letter is from University Professor (personal supervisor), where applicant is/was studying. (Personal supervisor is advisable, but other Professors are also acceptable.) 3) If applicant sees difficulty to obtain a letter from person stated above 2), s/he needs to write reason for this matter and prepare both letter from person stated in 1). 4) Fill in the recommendation forms to show the status of recommender and relation between her/him and applicant. In the case Tohoku University cannot identify it clearly, office might ask further documents / certificate to submit. 5) There is no prescribed envelope.
8	Statement of objectives and plans (prescribed form style No.4) The applicant's essay must be no less than 800 words and no more than 1,000 words in length. Please describe the following: 1. Your reasons for wanting to enroll in this International Course for "Public Health Sciences for Human Security" ; 2. The research theme, field and subject of your interest ; 3. Your career plans upon completion of this Master's Program.
9	Application fee Application fee is 30,000 yen. Application is not accepted until the fee is paid.
10	Receipt for application fee payment (prescribed form style No.5) The applicant should write his/her name in the two parts on the applicable sheet.
11	Application card/Photo card (prescribed form style No.6) One 4 cm x 3 cm photo must be attached in the space provided. The photo should be taken showing the upper half of the body without a hat/cap within 3 months of application, and should have the applicant's name and nationality written on the back.

Please Note:

1. Area of Research Themes

Research Theme	Advisor in Charge	Division	e-mail/URL
-Pathogenesis and epidemiology of viral infections	Prof. Hitoshi Oshitani	Division of Virology	e-mail: oshitanih@med.tohoku.ac.jp http://www.virology.med.tohoku.ac.jp/index-en.html
-Basic HIV researches for antivirals, drug resistance, and vaccines -AIDS/TB co-infection will be also studied in collaboration with South-Africa.	Prof. Toshio Hattori	Division of Emerging Infectious Diseases	e-mail: toshatto@med.tohoku.ac.jp http://www.med.tohoku.ac.jp/english/org/medical/27/index.html
-Toward effective therapy of cancer: molecular analysis of clinically relevant radioresistant cells - How to protect people from nuclear and radiation accidents.	Prof. Manabu Fukumoto	Division of Pathology	e-mail: fukumoto@idac.tohoku.ac.jp http://www.idac.tohoku.ac.jp/dep/path/index_e.html

Please choose one from the above for your research supervisor and write in the applicable column in the application form. It is recommended to contact him in advance.

- 2. Under certain circumstances, you might be requested to submit documents in addition to the application documents.**
- 3. Please print legibly in black or blue ink.**
- 4. All the application documents should be written in English or Japanese.**
- 5. The University cannot return any of the application documents after we accept them.**
- 6. Please be advised that Tohoku University may take steps to verify all the submitted documents in order to protect against fraud.**

(5) Application documents should be addressed to, and for any inquiry;

Tohoku University Graduate School of Medicine, Graduate Academic Affairs Section,
2-1, Seiryō-machi, Aoba-ku, Sendai, 980-8575, Japan
FAX Number: +81 (0) 22 717 8021
E-mail Address: HStohoku-jimu@med.tohoku.ac.jp

(6) Reminders

- Any blank spaces or irregularities found in applications may cause denial of the application, so applicants should exercise great care when filling out application forms.
- If it is found that the applicant has misrepresented the facts in an application, it may be the cause of cancellation of his/her admission, even if the applicant is accepted.
- The application due formally accepted, fee of 30,000 yen is NOT refundable under any circumstances.

4. Prescreening

Prescreening for confirmation of eligibility will be done for application forms that arrive before January 4, 2013. Please note that this will not be done for applications that arrive after that date.

5. Screening

- Screening will be conducted comprehensively on the basis of the submitted application documents, essay, language ability, and the result of interview.
Applicants will be required to have a phone interview on a date arranged beforehand. Date will be announced individually through an e-mail.
- Application card will be sent to applicant's e-mail address. Please check your Application No..
- Although there is no limit set on the number of openings for students for each division, we must limit the number of students we accept in the event of large numbers of applicants applying for a certain division. They may not receive their first choice of division. Those who have a second choice should write in the space for "Division You Apply For" provided on the application form.

6. Announcement of Successful applicants & Admission Procedures

- Official screening results will be sent by E-mail to all applicants and admission documents will be sent by mail to successful applicants.

(2) Fees for admission are as follows ;

- a) Admission fee: 282,000 yen
- b) First semester tuition: 267,900 yen (annual tuition: 535,800 yen)

Special Remarks

- 1) New students must pay tuition either by a one-time payment or in two installments. In the event that the amount of payment that students are required to pay is revised at the time of their enrollment or while they are in school, the revised amount of payment will be applied as of the revision.
- 2) A detailed explanation on the information such as exemption of the admission or tuition fees, or deferment of payment will be announced to successful applicants.

c) The enrollment dates are as follows:

Schedule of Enrollment	
Spring 2013 / Fall 2013	April 1 (Mon), 2013 / October 1 (Tue), 2013

7. Other Information

Privacy policy

- a) Tohoku University is committed to protecting applicants and admitted students. Private information from them collected in the process of their application and registration is only used for screening purposes, admission procedures, scholarship and welfare guidance as well as study guidance and so on.
- b) Private information is dealt with confidentially and no personal information shall be divulged without their permission.
- c) We understand that applicants who apply for the Master's Program of the Medical Sciences International Course for "Public Health Sciences for Human Security" have already agreed with the conditions mentioned above.

November, 2012

TOHOKU UNIVERSITY GRADUATE SCHOOL OF MEDICINE

Graduate Academic Affairs Section

2-1 Seiryomachi, Aoba-ku, Sendai 980-8575 Japan

FAX Number: +81 (0) 22 717 8021

E-mail Address : HStohoku-jimu@med.tohoku.ac.jp

This application information can be viewed at the following website:

URL: <http://human-security.jp/health/>

* This is a prearrangement. It might be changed after the enrollment.

Lecture Contents

Lecture Contents (Objective/Outline/Instructors)

Compulsory Subject

Introduction of Infectious Diseases – Changes of Environment and Infectious Diseases –

(Credit:2)

【Instructor】

Toshio Hattori, M.D., D.PH.(Prof. Division of Emerging Infectious Diseases)

【Objectives】

Human lives are maintained by mutual support by many systems like a society. How immune system fight against pathogens and how pathogens escape from immune systems will be discussed. Despite the optimistic view on infectious diseases, tuberculosis, cholera, dengue, plague and malaria have increased in incidence or geographic range, as have new drug-resistant strains of bacteria. In addition newly recognized diseases, such as Aids or Sars, have emerged. Population increase, changing socioeconomic structures, pollution, agricultural activity, and international conflicts worldwide have each contributed to infectious disease events. We will discuss how environmental changes behaviors of pathogens, hosts and their interactions. Finally we will studies infectious diseases in Africa, from which many pathogens are originated..

【Outline】

1. Human security and infectious diseases.
2. Epidemiology of infectious diseases.
3. Climate changes of infectious diseases.
4. Etiology and epidemiology of pediatric infectious diseases.
5. Immune responses and immune abnormalities.
6. Travel medicine
7. Imported fungal infection.
8. Water, safety and waterborne infection.
9. Zoonosis
10. Drug resistant pathogens
11. Pandemic influenza
12. Pathological aspects of infectious diseases in Africa
13. HIV/AIDS and Tuberculosis in Africa
14. Neglected infectious diseases in Africa.
15. Towards development of network on infectious diseases in Africa.

Lecture Contents (Objective/Outline/Instructors)

Communicable disease Outbreak and Response (Credit:2)

【Instructors】

Hitoshi Oshitani MD, MPH, PhD (Professor, Department of Virology)

【Objectives】

In the occurrence of communicable disease outbreaks, rapid assessment as well as ongoing and systematic response is utmost important. Through this lecture program, participant will study the basic aspects of communicable disease outbreak and response to know the health crisis response and management in detail. Relevant areas such as communications as well as infection control are also studied in this lecture program.

【Outline】

Below outlines will be modified or changed in considering the extent of classes and other conditions.

1. Basic epidemiology of communicable diseases
2. Overview of Outbreak Investigation and response
3. Overview of communicable disease surveillance
4. Early warning system for outbreak detection
5. International response to outbreaks
6. Vaccines and outbreak response
7. Infection control in health care settings (1)
8. Infection control in health care settings (2)
9. Influenza pandemic and response
10. Public health preparedness for bioterrorism
11. Risk communication in health emergencies
12. International Experience on Infectious Disease Control
13. Desktop exercise on outbreak response (1)

Social Support for the Health of Aging Population (Credit:2)

【Instructor】

Kazuhiko Yanai MD., Ph.D. (Professor, Department of Pharmacology), Kenichi Meguro MD., Ph.D. (Professor, Department of Geriatric Behavioral Neurology)

【Objectives】

As an objective of human security, it is important to understand the social system and to make more appropriate policy for people based on the bio-psycho-social viewpoint of health advocated by the WHO. For countries with increasingly large populations of older adults, various aging-related disorders cause quite a few social handicaps. A comprehensive approach for integrating not only medical but also psycho-social and economical viewpoints should be needed for better health policy planning. The first objective is to understand the bio-psycho-social viewpoint and bioethics on the social support for elderly. The second aim is to understand the social support system and Quality of Life (QOL) for the handicapped and elderly. Especially, the Long-Term Care Insurance system for elderly in Japan, which is well-organized system to support well-being in the elderly, should be understood. Also, dementia is one of the important aging-related disorders, which can affect not only patients themselves but also their families and society. The third objective is to understand the dementia and dementing diseases, not only for medical aspects, but also psycho-social and economical aspects. Following the Great East Japan Earthquake 2011, we discovered various cases of weakness due to the disaster. Most of them were previously assessed as the borderline condition between healthy and dementia. It is important to routinely screen community residents for security.

To understand the basic concept and scope of issues on social support for the health of aging population.

1. To understand the bio-psycho-social viewpoint and bioethics on the social support for elderly.
2. To understand the social support system and Quality of Life for the handicapped and elderly.
3. To understand the dementia and dementing diseases, not only for medical aspects, but also psycho-social and economical aspects.

【Outline】

1. Symposium, Workshop, Lectures, Case studies.
2. The Long-Term Care Insurance system for elderly in Japan, which is well-organized system to support well-being in the elderly, is covered.
3. Actual research fields in Miyagi Prefecture are visited and observed.

Lecture Contents (Objective/Outline/Instructors)

Disaster preparedness for Public Health (Credit:2)

【Instructor】

Shigeki Kushimoto, M.D., Ph.D. (Professor, Division of Emergency Medicine)

【Objectives】

Natural disasters have become more realistic threats to human security. This subject intends to help public health leaders to plan and prepare for effective disaster prevention and responses, from impact phase to reconstruction phase, including protection of the vulnerables and psychological support. Also, the lessons of the Great East Japan Earthquake and Tsunami, as well as Fukushima Nuclear Accident, will be shared by the instructors who were actively involved in relief operation in those occasions.

【Outline】

1. Disaster epidemiology and disaster health management
2. Disaster Medical Assistant Team (DMAT) and mass casualty management
3. Lessons of the Great East Japan Earthquake and Tsunami
4. Lessons of Fukushima Nuclear Accident

Development Economics (Credit:2)

【Instructor】

Hitoshi Yonekura, Ph.D.(Prof., Department of Resource and Environmental Economics)

【Objectives】

Students are required to learn Micro Economics and Macro Economics in advance. We will study economic and agricultural development with using relevant textbooks which comprise theoretical models and empirical studies. We intend to study development economics taking into consideration the difference of the social systems/institutions among countries and areas, and to learn practical methods of empirical studies. One of the aims of this subject is to make students obtain fundamental knowledge and analytical skills to draft development plan and aid scheme for developing countries. This is seminar style and held in the first term every year.

【Outline】

1. Evolution of development strategy
2. Industrialization and labor migration
3. Economic development of Asia
4. Socio-economic structure of Asian villages
5. Resource management in Asian villages
6. Farm household model analysis
7. Land tenure system and related institutions
8. Technological change and institutional change in agriculture
9. Market mechanism and institutions in rural areas
10. Roles of farmers and traders in the distribution of agricultural products

Lecture Contents (Objective/Outline/Instructors)

Environmental Security and Energy Security (Credit:2)

【Instructor】

Justen Asuka, D.PH (Prof., Division of Center for Northeast Asia Studies)

【Objectives】

This subject will examine the concrete alternatives for the security issues such as the global warming and energy security from the economic/political perspective. Lecture will be taken seminar form. Many audio media (ex. video) on the relevant subjects will be used.

【Outline】

1. Climate change as a global security issue
2. Energy security
3. Water shortage
4. Environmental issues in the developing countries (I)
5. Environmental issues in the developing countries (II)
6. Renewable energy
7. International convention on the climate change
8. Woman and energy
9. Poverty and energy
10. Population and environment
11. International cooperation
12. Trans-boundary air pollution
13. Environmental issues in China
14. Redefine the security issues (I)
15. Redefine the security issues (II)

Special Lectures on Human Security A, B (Credit:1 for each)

【Instructors】

Toshio Hattori, M.D., D.PH.(Prof. Division of Emerging Infectious Diseases), Shigeaki Fujisaki (Prof. Division of International and Regional Environmental Studies), Hitoshi Yonekura, Ph.D.(Prof., Department of Resource and Environmental Economics), Dinil Pushpalal, Dr.Eng.(Prof., Department of International Resources Policy)

【Objectives】

To learn the perspectives of human security, selected cases will be studied to investigate structure of problems by interdisciplinary approach and in a participatory manner.

【Outline】

The faculty of the four schools, invited guest lecturers and students of the course will jointly conduct workshops for case studies regarding specific subjects of Human Security.

1. Integrated methods for case study on human security
2. Systematic analysis of insecurity cases
3. Country report on assigned topics
4. Joint lectures on assigned topics

Lecture Contents (Objective/Outline/Instructors)

Consumable Resources and Social Conflicts (Credit:2)

【Instructor】

Dinil Pushpalal, Dr. Eng. (Prof., Department of International Resources Policy)

【Objectives】

This subject is focused on the direct or indirect interference of consumable resources with human insecurity.

【Outline】

1. An introduction to consumable and non-consumable resources
2. Resources and human security
3. Environmental impact of resources
4. Environmental impact, affluence and technology
5. Human Development Index and Ecological Footprint
6. Global inequality and human security
7. Looming energy insecurities in Asia
8. Japan's struggle for strategy
9. Exclusive Economic Zone
10. Caspian sea basin resource conflicts
11. South China sea resource conflicts
12. Water wars
13. From human insecurity to international armed conflict
14. Dreaming with BRICs
15. Coping with the Asian future

Lecture Contents (Objective/Outline/Instructors)

Elective Subject

Hydro-Environmental Studies (Credit:2)

【Instructor】

So Kazama, Dr. Eng.(Assoc.Prof., Division of International Environmental Studies)

【Objectives】

The objective is to understand hydrological processes and cycle, the prevention of draught and flood, and the relationship between water and human activity in view of the watershed scale.

【Outline】

1. Hydrological cycle in the watershed
2. Precipitation process
3. Evapotranspiration I
4. Evapotranspiration II
5. Runoff
6. Runoff modeling
7. Flood and inundation hydraulics
8. Flood control and preventions of hard and software
9. Draught problems
10. Substance transport I
11. Substance transport II
12. Riverine environments
13. PHABSIM and HEP
14. Watershed environment and human activities
15. Presentation

Food Economics (Credit:2)

【Instructor】

Fusao Ito, Ph.D.(Assoc.Prof., Department of Resource and Environmental Economics)

【Objectives】

This subject will examine the problems concerning about the security of food which is indispensable for our lives from a perspective of economics. The security of food contains quantitative problem regarding the acquisition of necessary amount of nutrition and qualitative problem regarding the measure devised to deal with ruined health. To the former problem, we will examine the supply and demand structure for food and policies for food on the global level. For the latter problem, we will examine the alteration of Japanese food chain along with its economic development and state of food and security administration against the BSE problem and biotechnology in food. Class will be taken seminar form.

【Outline】

1. Structural change of food-chains
2. Food safety in new food-chains
3. Evaluation of food safety and nutritional status
4. Risk communication for healthy options
5. Consumer's perspectives on food-related biotechnologies
6. Social cost of food-deprived diseases
7. Regulations for food safety
8. Government and food industries
9. Evolution of the concept and institutions on safety control of foods
10. Food and environment

Lecture Contents (Objective/Outline/Instructors)

Human Security and Global Society(Credit:2)

This course is subject to change.

【Instructor】

Misako Takizawa(J.F. Oberlin University)

【Objectives】

The main goal of this course is to make participants aware of the essence of diverse approaches in the world in terms of human security , develop their own understanding toward it . Participants will also be able to identify human insecurities in specific issues in global society , such as peace and security , development ,health , education ,industrial and business practices , human rights and gender , etc . and make their own critical analysis towards them from the perspective of human security .

【Outline】

1. Notion of Human Security: Emerging Concept?
2. Human Security as National Diplomatic Policies
3. Human Security and the International Organization both at universal and regional level
4. Human Security and the Civil Society Organizations
5. Freedom from Fear 1: R2P and Human Security
6. Freedom from Fear 2: Peace Building and Human Security
7. Freedom from Fear 3: Judicial Intervention: ICC and Human Security
8. Freedom from Want 1: Poverty and Human Security
9. Freedom from Want 2: Sustainability and Human Security
10. Freedom from Want 3: Health, Gender and Human Security
11. Freedom to Live in Dignity 1: Human Rights of Vulnerable Groups and HS
12. Freedom to Live in Dignity 2: Refugees and Human Security
13. Freedom to Live in Dignity 3: Human Trafficking and Human Security
14. The Case Study: Okinawa
15. Human Security and Us: towards a Global Civil Society?

Infectious Disease Epidemiology (Credit:2)

【Instructor】

Hitoshi Oshitani MD, MPH, PhD (Professor, Department of Virology)

【Objectives】

The course will introduce the basic methods for infectious disease epidemiology as well as new areas of infectious disease epidemiology such as global information system (GIS) and epidemiological modeling. The course will also provide some case studies of data analysis with basic statistics and important topics. This course plans to be conducted as off-campus seminar.

【Outline】

Below outlines will be modified or changed in considering the extent of classes and other conditions.

1. Basic epidemiology of communicable diseases
2. Overview of Case control studies
3. Overview of Cohort studies
4. Infectious disease surveillance
5. Vaccine administration and public health
6. Vaccine preventable diseases
7. Transmission dynamics and modeling
8. Molecular epidemiology on viral diseases
9. Etiology of pediatric pneumonia
10. GIS and infectious diseases
11. Infection control and clinical epidemiology
12. Data analysis and basic statistics (1)
13. Data analysis and basic statistics (2)