

平成 28 年度 (2016)

京都大学

Kyoto University

文部科学省 博士課程教育リーディングプログラム 複合領域型(安全安心)

Program for Leading Graduate Schools, MEXT

(Multidisciplinary Field of Safety and Security)

グローバル生存学大学院連携プログラム

Inter-Graduate School Program for

Sustainable Development and Survivable Societies

Global Survivability Studies Program (GSS)

募集要項

Application Guideline

平成 28 年度

Academic year 2016



京都大学学際融合教育研究推進センター

グローバル生存学大学院連携ユニット

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Center for the Promotion of Interdisciplinary Education and Research

Inter-Graduate School Unit for Sustainable Development and Survivable Societies

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<http://www.gss.sals.kyoto-u.ac.jp>

## About the Inter-Graduate School Program for Sustainable Development and Survivable Societies (Admission policy)

Fostering human resources with a broad-based knowledge and a specific expertise, combined with flexible thinking, determination and the ability to take action, ready to lead in every area of society, is one of the missions of Kyoto University, and an essential requirement in all areas of society, including industry, government and academia.

The Inter-Graduate School Program for Sustainable Development and Survivable Societies is based on cooperation among 9 graduate schools and 3 research institutes. In close collaboration with the industry world, governments, international organizations, national and overseas universities, this programs aims at developing an advanced interdisciplinary graduate education focused on the area of safety and security, and at actively fostering the future leaders of our global society.

Today's global society is facing an increasing frequency of hazardous events and social instability, which can be identified as 1) large-scale natural disasters, 2) unexpected man-made disasters and accidents, 3) regional environmental changes such as environmental degradation and infectious diseases, 4) issues regarding food security. In the Inter-Graduate School Program for Sustainable Development and Survivable Societies, a new interdisciplinary field of global survivability studies will address and cover each of these issues (fig.1), and will develop human resources who are:

- 1- filled with the sense of mission and ethics necessary to overcome the many crises the human race is facing, and to enrich human society and contribute to its well-being.
- 2- equipped with sound judgment and energy, able to implement appropriate measures based on their own specific expertise, and on a wide vision and a broad-based knowledge.

The students who complete the Global Survivability Studies Program (GSS) are expected to be:

- Academic leaders who are active in the field of social/safety system science, as high-level researchers and educators,
- Leaders in the field of international crisis management, who are active on the global scene, in international organizations,
- Leaders in the industry who are able to appropriately address disasters, accidents and economic crisis, providing a stable and consistent business management,
- Leaders at the local and national level who exercise their leadership in policy making regarding food, resources and energy safety,
- Science communicators who convey correct information based on their scientific knowledge, thus limiting public anxiety, or
- New business leaders who develop new technologies and methodologies in the field of safety and security and start their own business

They will be able to assume leading positions in various areas of our global society and move it in the right direction.

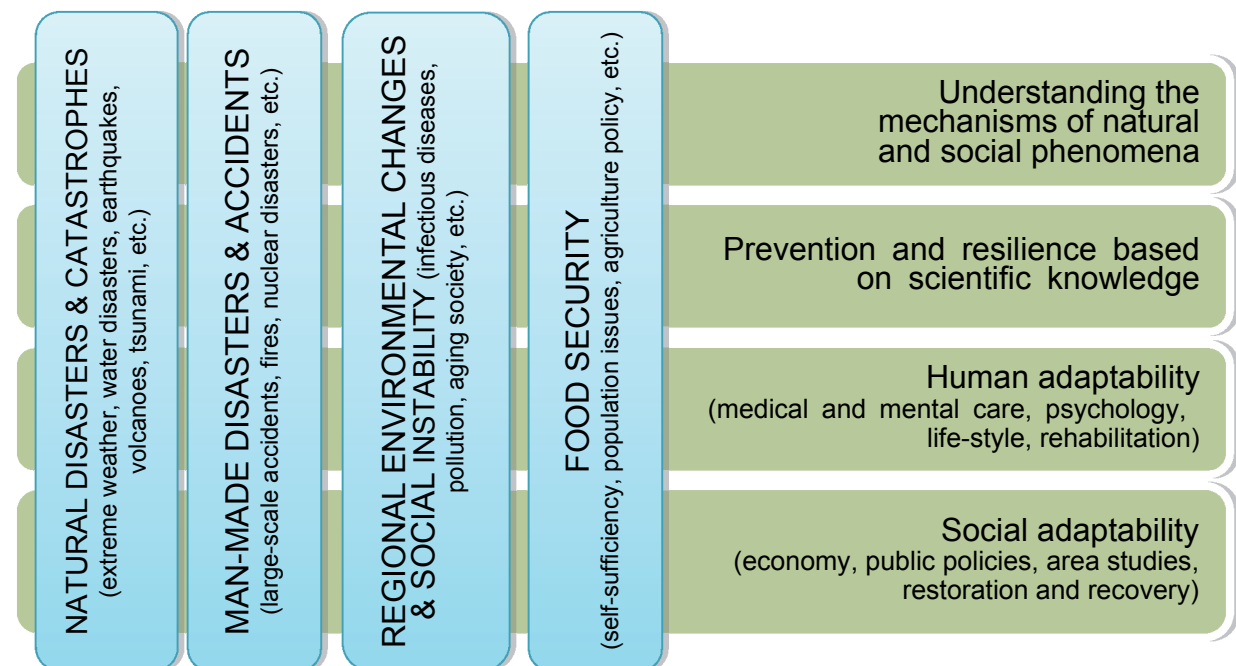


Fig.1 : Scope of Global Survivability Studies

This program welcomes able young students who are aiming at such careers, and will send them out in the world as capable human resources after a fruitful **5-year graduate education**. Kyoto University strongly hopes that these students eventually contribute to a harmonious global society.

In this program, students are expected to not only fulfill the requirements of their respective graduate schools, but also to complete several classes and curriculum requirements specific to the GSS Program, thus making these 5 years a challenging but rewarding time.

After enrollment in their respective graduate schools, students (up to 40) are first recruited and selected in April for a 6 months **preparatory course** (from April to September), as program students (preparatory course students). They will attend the GSS general seminars until July when another selection process will determine the 20 students who will proceed as official program students from October.

In order to reduce economic burden and allow program students to fully concentrate on the program and their research, the program will provide qualifying students (see page 6 (4)) with financial supports such as study fellowship (14 L4 students, 10 L3 students, 13 L2 students and 18 L1 students, each received 200,000 yen per month in 2015), and students conducting creative research with research grants up to 1,000,000 yen per person and per fiscal year 2016 (500,000 yen per person and per half year) (18 L4 students, 10 L3 students, 13 L2 students and 19 L1 students were granted in 2015). Furthermore, program students who does not apply for the research grant or whose application for the research grant is rejected are granted a budget of 300,000 yen per fiscal year to use as conference fees and other educational expenses. However upper limits of these research grant and budget may be subject to change according to the whole program budget. **Besides such financial supports will be available until March 2018, when the program for Leading Graduate Schools, MEXT ends.**

## 1. Number of students to be recruited

- (1) 40 program students (preparatory course students)
- (2) 20 program students

## 2. Eligibility requirements

Preparatory course students for this program must be enrolled in a Doctorate Program (1<sup>st</sup> part/Master Program) in one of the graduate schools and departments involved in the program (see Table 1 below) as of April 2016.

Table 1 : Graduate Schools, Departments and Divisions involved in the Inter-Graduate School Program for Sustainable Development and Survivable Societies

Graduate School of Education	All departments (Department of Education, Department of Clinical Education)
Graduate School of Economics	All departments (Department of Economics)
Graduate School of Science	Division of Earth and Planetary Sciences
Graduate School of Medicine	Department of Medicine and Medical Science, School of Public Health
Graduate School of Engineering	Department of Civil and Earth Resources Engineering, Department of Urban Management, Department of Environmental Engineering, Department of Architecture and Architectural Engineering, Department of Mechanical engineering and Science
Graduate School of Agriculture	All departments (Division of Agronomy and Horticultural Science, Division of Forest and Biomaterials Science, Division of Applied Life Sciences, Division of Applied Biosciences, Division of Environmental Science and Technology, Division of Natural Resource Economics, Division of Food Science and Biotechnology)
Graduate School of Asian and African Area Studies	All departments (Division of Southeast Asian Area Studies, Division of African Area Studies, Division of Global Area Studies)
Graduate School of Informatics	Department of Social Informatics, Department of Communications and Computer Engineering
Graduate School of Global Environmental Studies	All departments (Doctorate Program in Global Environmental Studies, Doctorate Program in Environmental Management)

### 3. Request for application form and application guideline

Application form and application guidelines will be available at the office of the Inter-Graduate School Unit for Sustainable Development and Survivable Societies, Center for the Promotion of Interdisciplinary Education and Research.

(1) Application form (1 set)

(2) Application guideline (1 copy)

These documents will be available from March 1 (Tuesday) to April 20 (Wednesday) 2016 (weekdays from 9:00 to 17:00) at

Inter-Graduate School Unit for Sustainable Development and Survivable Societies Office,  
Center for the Promotion of Interdisciplinary Education and Research, Kyoto University  
KYOTO UNIVERSITY HIGASHI ICHIJOKAN, 1<sup>st</sup> floor  
1 Yoshida-Nakaadachi-cho, Sakyo-ku, Kyoto  
Tel.: 075-762-2163/2164

### 4. Application procedure

In order to apply, students have to submit the three following documents in person:

(1) Application form (1 set)

(2) Academic record of undergraduate courses

(3) Results of English language proficiency tests (TOEFL, TOEIC, IELTS) taken after April 2014 and which are available before April 20, 2016. In the event that results cannot be submitted before April 20, students are required to submit them by July 6 at the latest.

Regarding TOEFL, results of both TOEFL-iBT (internet-Based Test) and TOEFL-PBT (Paper-Based Test) are acceptable. Regarding TOEIC, results of open tests conducted in Japan or Korea are acceptable. Note that results of other tests such as TOEFL-ITP, TOEIC-IP, etc. are not acceptable.

Documents shall be the original and copies will not be accepted. Any misrepresentation in the document and/or score will result in immediately rejection.

Students are required to submit these documents in person at:

Inter-Graduate School Unit for Sustainable Development and Survivable Societies Office  
Center for the Promotion of Interdisciplinary Education and Research, Kyoto University  
KYOTO UNIVERSITY HIGASHI ICHIJOKAN, 1<sup>st</sup> floor  
1 Yoshida-Nakaadachi-cho, Sakyo-ku, Kyoto 606-8306  
Tel.: 075-762-2163/2164

If you cannot submit the form in person, you can send it in an envelope marked “application documents enclosed” as registered mail (with trackable delivery status). In such case, it must imperatively be delivered by April 20 (Wednesday) 17:00.

Application period: April 15 (Friday) ~ April 20 (Wednesday) 2016 (weekdays from 9:00 to 17:00)

### 5. Global Survivability Studies (GSS) Program selection process

For each candidate, we will conduct an evaluation of the application files, the academic record of undergraduate course as well as the results of the graduate school entrance examination. A selection interview may be organized if deemed necessary.

※ Students will be informed of the date and time of the interview by April 25 (Monday) through the e-mail address they provided in their application forms. The interviews will take place on April 26 (Tuesday).

### 6. Announcement of the selection results for program students (preparatory course students)

Results of the selection of program students (preparatory course students) will be announced on the website on May 13 (Friday).

## 7. About the Global Survivability Studies Program preparatory course

During **the leading preparatory course** (until September), each program student (preparatory course student) is required to attend classes of his/her respective graduate school, understand the objectives and content of this program, and decide if the program is suitable for them, in terms of abilities and aptitudes. In order to assist all program students (preparatory course students) to go through this process during the preparatory course period, they have to attend the GSS general seminars.

※ If a student decides to withdraw from the program during the preparatory course period, one must inform the Inter-Graduate School Unit for Sustainable Development and Survivable Societies Office by submitting a signed or sealed letter (no specific form).

## 8. Selection process for Global Survivability Studies program students

By the end of July, the successful program students (preparatory course students) will be selected to start as official program students from October. The selection process will take into account the following elements:

- (1) Overall evaluation for the leading preparatory course seminar (attendance, GSS theme-report in English, presentation and group discussion in English)
- (2) Results of English language proficiency tests (TOEFL, TOEIC, IELTS) taken after April 2014. These results need to be available by July 6, 2016 at the latest.  
Regarding TOEFL, results of both TOEFL-iBT (internet-Based Test) and TOEFL-PBT (Paper-Based Test) are acceptable. Regarding TOEIC, results of open tests conducted in Japan or Korea are acceptable. Note that results of other tests such as TOEFL-ITP, TOEIC-IP, etc. are not acceptable.  
Documents shall be the original and copies will not be accepted. Any misrepresentation in the document and/or score will result in immediately rejection.
- (3) Content of preparatory course final report (research project and study plan)
- (4) Result of graduate school entrance examination
- (5) Confirmation of Intent.  
etc.

Further details regarding the evaluation process will be determined by the Evaluation Committee and will be communicated to program students (preparatory course students) at an appropriate time such as orientation.

## 9. Announcement of the selection result for Program students

Identification numbers of the preparatory course students admitted to the program will be announced at the end of July on the GSS website.

The selected students will attend the Global Survivability Studies Program as official program students. Please refer to the Course Guidelines (available after April 2016) for further details on the program.

## 10. Handling of personal information

We will treat personal information of the students in accordance with the personal information policy in force in Kyoto University for the selection and registration of program students.

## 11. Selection process and flow

Timeframe	Procedure	Remarks
March-1-April 20	Distribution of application form and application guideline	GSS unit office
	↓	
April 1-8	Distribution of application form and application guideline at guidance meeting of each graduate school and department	
	↓	
April 1-7	GSS Guidance (Yoshida, Katsura, Uji)	
	↓	
April	Class registration in each graduate school (Submission of auditing student application for classes offered by other graduate schools)	Regarding auditing student application, each student submits necessary documents to his/her own graduate school.
	↓	
April 15-20	Submission of application form	GSS unit office
	↓	
April 26	Selection process of program students (preparatory course students) (Interviews only when deemed necessary)	(Interview location to be announced later)
	↓	
May 13	Announcement of the selected program students (preparatory course students)	GSS website
	↓	
Mid-May	Orientation for program students (preparatory course students)	
Mid-May -Mid-June	Leading preparatory course, GSS general seminars	(Details to be announced)
	↓	
July	Selection of program students from preparatory course students	
	↓	
Late July	Announcement of the selected program students	GSS website
	↓	
Early August	Applying for GSS fellowship and GSS Research Grant	
	↓	
Late September	Announcement of Selected GSS fellowship students and GSS Research Grant	GSS unit office
	↓	
October 1	Program Students start GSS Program 2016	
	↓	
Early October	GSS Enrollment Ceremony and orientation	

## (Reference)

### Implementation record of the Leading Program for academic year 2015

#### (1) Agenda of program students (preparatory course students)

- GSS general seminars : Introduction to GSS studies in 6 lectures
- Presentation in English (each student made one presentation of 15 minutes which was followed by questions and answers of 15 minutes) and group discussion (50 minutes)
- 6 GSS general seminar theme-reports in English
- Preparatory course final report (research project and study plan)

#### (2) Agenda of program students (GSS homeroom was compulsory and other activities were optional)

- GSS homeroom (once a month ) and joint off-site homeroom in Kanazawaesennuma city and Noto Peninsula, Ishikawa prefecture (during summer holiday)
- 11 sessions of interdisciplinary seminar (8 of 1 session course, 1 of 2 session course, 1 of 8 session course and 1 of 4 session course for Leadership development workshop)
- 1 overseas field training (Singapore)
- 2 internship (Summer Internship in Mizuho DL Financial Technology and WHO Winter Internship)
- 3 international academic exchanges (UNESCO IHP training course, Potsdam Summer School and African Local Knowledge and Conflicts in Global Context)
- 8 English training course (3 of 1 day course for speaking, 3 of 1 day course for presenting and 2 of 1 day course for writing)

#### (3) Registration to the program

- 26 program students (preparatory course students) and 4 of program students (Third-Year preparatory course students) from April to September
- 71 program students (including Third-Year-enrollment students, as of 1 October 2015)
  - A total of 20 L4 students from Education: 1, Economic: 1, Science: 1, Medicine: 2, Engineering: 6, Agriculture: 1, Asian and African area studies: 5, Informatics: 1, Global Environmental Studies: 2
  - A total of 17 L3 students from Education: 1, Science: 1, Medicine: 2, Engineering: 3, Agriculture: 3, Asian and African area studies: 5, Informatics: 1 Global Environmental Studies: 1
  - A total of 14 L2 students from Education: 1, Science: 1, Medicine: 3, Engineering: 2, Agriculture: 1, Asian and African area studies: 4, Global Environmental Studies: 2
  - A total of 20 L1 students from Education: 1, Economics: 2, Medicine: 5, Engineering: 2, Agriculture: 3, Asian and African area studies: 5, Global Environmental Studies: 2

#### (4) Financial support for program students

In order to reduce economic burden and allow program students to fully concentrate on the program and their research, the program provided qualifying program students with the following financial supports.

- Study fellowship for qualifying\* students (14 L4 students, 10 L3 students, 13 L2 students, 18 L1 students each received 200,000 yen per month in 2015)
- Research grant for creative research up to 1,200,000 yen per person and per fiscal year (18 L4 students, 10 L3 students and 13 L2 students) and 600,000 yen per person per half year (19 L1 students were granted in 2015).(Upper limit of Research grant in 2016 is 1,000,000 yen (500,000 yen per half year)).
- All program students were granted a budget of 300,000 yen for fiscal year to use as conference fees and other educational expenses. (In 2016, program students who does not apply for the research grant or whose application for the research grant is rejected are granted a budget of 300,000 yen per fiscal year to use as conference fees and other educational expenses.)

\*Qualifying students must meet all the following requirements.

- (1) Be enrolled as a program student
- (2) Receive no financial aid from any other kind of scholarship
- (3) Have no income from any part time job, etc.
- (4) Have been enrolled less than 5 years (not including period of temporary absence) in a graduate school at Kyoto University
- (5) Evaluated to have achieved excellence based on their grades and scores in this program





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文部科学省 博士課程教育リーディングプログラム 複合領域型 (安全安心)

Program for Leading Graduate Schools, MEXT

(Multidisciplinary Field of Safety and Security)

グローバル生存学大学院連携プログラム

Inter-Graduate School Program for  
Sustainable Development and Survivable Societies

**Global Survivability Studies Program (GSS)**

履 修 要 項

**Course Guideline**



京都大学学際融合教育研究推進センター

グローバル生存学大学院連携ユニット

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Inter-Graduate School Unit for Sustainable Development and Survivable Societies

KYOTO UNIVERSITY HIGASHI ICHIJOKAN, 1 Yoshida-Nakaadachi-cho, Sakyo-ku, Kyoto

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## 1. Kyoto University educational goals and degree policy regarding the Program for Leading Graduate Schools

### Kyoto University Mission Statement (2001, excerpt)

- Kyoto University will generate world-class knowledge through freedom and autonomy in research that conforms to high ethical standards.
- As a university that comprehends many graduate schools, faculties, research institutes and centers, Kyoto University will strive for diverse development in pure and applied research in the humanities, sciences and technology, while seeking to integrate these various perspectives.
- Within its broad and varied educational structure, Kyoto University will transmit high-quality knowledge and promote independent and interactive learning.
- Kyoto University will educate outstanding and humane researchers and specialists, who will contribute responsibly to the world's human and ecological community
- As a university committed to a broad social engagement, Kyoto University will encourage cooperation with local and national society, and will disseminate knowledge informed by the ideals of freedom and peaceful coexistence.
- As an international institution, Kyoto University will promote foreign academic exchange and thereby strive to contribute to the well-being of the world.

### From the application guidelines for the Program for Leading Graduate Schools (2011)

The Program for Leading Graduate Schools aims at mentoring talented students into future leaders, armed with a broad view and creative thinking, active globally in industry, academia and government. In order to do so, the Program for Leading Graduate Schools mobilizes high-level educators and students and the participation of industry, academia and government, support a radical reform of graduate education that develops interdisciplinary world-class 5-year graduate programs, and promotes the development of graduate schools befitting their status of highest educational institution.

### (1) Educational goals and objectives for the Program for Leading Graduate Schools

As a high-quality 5-year degree education based on an active dialogue with professors and professionals from the university and outside and an industry-government-academia cooperation, this program is designed to develop internationalized human resources with a global view on different fields of expertise and a creative problem-solving stance, equipped with strong communication skills and comfortable in an international setting, active on a global scale.

### (2) Admission Policy

The Program for Leading Graduate Schools of Kyoto University welcomes appropriately qualified students who understand and agree with its core objectives, and are ready to embrace them with a strong motivation.

### **(3) Curriculum Policy**

This 5-year program promotes constructive self-learning through dialogue with various educators and professionals from inside and outside the university, as well as a high-level practical education based on industry-government-academia cooperation. This world-class curriculum aims at fostering human resources able to

- conduct research projects from plan to completion,
- communicate and explain their endeavour to the public,
- organize a research team and lead the way in new research fields at an international level.

Full details of the curriculum policy will be fixed within each program.

### **(4) Degree Policy**

This program requires students to enroll for the number of academic years appropriate for their graduate school, to undergo research training and guidance in line with the curriculum policy of the Program for Leading Graduate Schools within their graduate school, to submit a doctoral thesis within the number of years allotted by their graduate school, and pass all designated qualifications and examinations. Depending on their graduate schools, students may also be required to complete a designated number of credits in order to complete the program.

In order to complete the program, students are expected to acquire the knowledge and aptitudes necessary to gain a global view on different fields of expertise and a creative problem-solving stance, as well as the experience and aptitudes necessary to demonstrate strong communication skills and a career in an international setting.

The first stage (the first two years) of this program requires students to complete the designated courses and meet the credits requirements in line with the curriculum policy of the Program for Leading Graduate Schools within their graduate school, the submission of a Master's thesis (if it is required) and passing of all the corresponding qualifications and examinations, as well as passing the Basic Doctoral Ability Qualification (BDAQ).

In order to pass the BDAQ, students are required to complete the designated courses and credit requirements in line with the program, and to meet all other necessary criteria.

In order to meet the criteria for the BDAQ, students are required to be equipped with basic research skills, such as a specific field of expertise, an extensive knowledge, the ability to plan a research project, and communication skills that include foreign language skills.

For further details regarding the standards for Master and Doctoral thesis, please refer to the degree policy of each graduate school.

## 2. The Global Survivability Studies Program (GSS)

The Inter-Graduate School Program for Sustainable Development and Survivable Societies aims at developing a new academic discipline of Global Survivability Studies (GSS).

This Program is managed by the Inter-Graduate School Unit for Sustainable Development and Survivable Societies (GSS Unit), Center for Promotion of Interdisciplinary Education and Research (C-PIER), Kyoto University.

## 3. Admission Policy for the Global Survivability Studies Program

The Global Survivability Studies Program aims at the following in terms of educational goals.

### (1) Our Educational Goals

Fostering human resources with a broad-based knowledge and a specific expertise, combined with flexible thinking, determination and the ability to take action, ready to lead in every area of society, is one of the missions of the University of Kyoto, and an essential requirement in all areas of society, including industry, government and academia.

The Inter-Graduate School Program for Sustainable Development and Survivable Societies (Global Survivability Studies Program or GSS) is based on the cooperation of 9 graduate schools and 3 research institutes. In close collaboration with the industry world, government agencies, international organizations, national and overseas universities, this program aims at developing an advanced interdisciplinary graduate education focused on the field of safety and security, and at actively fostering the future leaders of our global society.

Today's global society is facing an increasing frequency of hazardous events and social instability, which can be identified as 1) large-scale natural disasters, 2) unexpected human disasters and accidents, 3) regional environmental changes such as environmental degradation and infectious diseases, 4) issues regarding food security. In the Inter-Graduate School Program for Sustainable Development and Survivable Societies, a new interdisciplinary area of "Global Survivability Studies" will address and cover each of these issues (**fig.1**), and will cultivate human resources

- 1- filled with the sense of mission and ethics necessary to overcome the many crisis the human race is facing, and to enrich human society and contribute to its well-being.
- 2- equipped with sound judgment and energy, able to implement appropriate measures based on their own specific expertise, and on a wide vision and a broad-based knowledge.

The students who complete the Global Survivability Studies Program (GSS) will be notably:

- Academic leaders active in the field of social / safety system science, as high-level researchers and educators.
- Leaders in the field of international crisis management, active on the global scene, in international organizations.
- Leaders in the industry able to appropriately address disasters, accidents and economic crisis, providing a stable and consistent business management
- Leaders at the local and national level who exercise their leadership in policy making regarding food, resources and energy safety
- Science communicators who convey correct information based on their scientific knowledge, thus limiting public anxiety
- New business leaders who develop new technologies and methodologies in the field of safety and security and start their own business

They will be able to assume leading positions in various areas of our global society and move it in the right direction. This program will welcome able young students who are aiming at such careers, and after providing them with a fruitful **5-year graduate education**, will send them out in the world as capable human resources. The University of Kyoto strongly wish that these students can eventually contribute to a more harmonious global society. In order to foster such human resources, the Global Survivability Studies Program (GSS) set 10 goals, which program students are required to achieve through program activities.

**Table 1- The Global Survivability Studies Program (GSS) Goals (to foster leadership)**

<b>GSS Goals</b>	<b>Description</b>
Knowledge of GSS Topics	Knowledge of disciplinary areas associated with global survivability studies.
Interdisciplinarity	An understanding of topics from each relevant discipline and the importance of approaching one's own research from an interdisciplinary point of view.
Project Management	Ability to identify the conditions necessary to execute a project, put the project into action, observe problems associated with the project, identify the problems accurately, present feasible solutions, carry out the project while implementing the solutions, and improve the project and one's self as a result of completing it.
Addressing Real World Problems	Ability to identify and understand real world problems by going out into the field to observe and evaluate the problems first hand. Using one's own expert knowledge to present solutions to aspects of these problems. Other people adopt one's solutions to the problem.
Interpersonal Communication	Ability to communicate with other people in a respectful and considerate manner by using appropriate strategies and media. Effective communication with GSS teachers and staff, external parties associated with GSS activities, and anyone else encountered during work or leisure time. Ability to interact respectfully with those whose ideas are different from one's own.
Appropriate Scientific Communication	Ability to communicate information about one's specialization to the general public beginning with the essentials and using appropriate means of communication. Uses an easy to understand manner that does not lower the level of content.
Multicultural Collaboration	Ability to understand and work successfully with one's own uniqueness. Demonstration of an understanding and appreciation for other cultures. Ability to interact with individuals from other cultures without treating them differently than one's self.
Demonstrating Initiative	Ability to work independently of others in planning and executing projects. Willingness to take initiative and demonstrate creativity in response to different contexts. Ability to thrive in most situations with independence and originality.
Practicing Ethical Behavior	Ability to perceive and consider appropriate responses to ethical issues in one's research area, accompanied by an understanding of the consequences of one's actions, and the ability to make ethical choices. Awareness of privacy considerations, adherence to copyright conventions, and avoidance of plagiarism. Practice of cultural sensitivity when making presentations and communicating in writing.
Toughness and Appealing Personality	Ability to address and resolve problems with toughness and charm. If you are charming enough you can convince each person involved to work for the benefit of all. If you are tough enough you can withstand any challenge and overcome any obstacle.

## **(2) Qualification Requirements: who, when, how to apply**

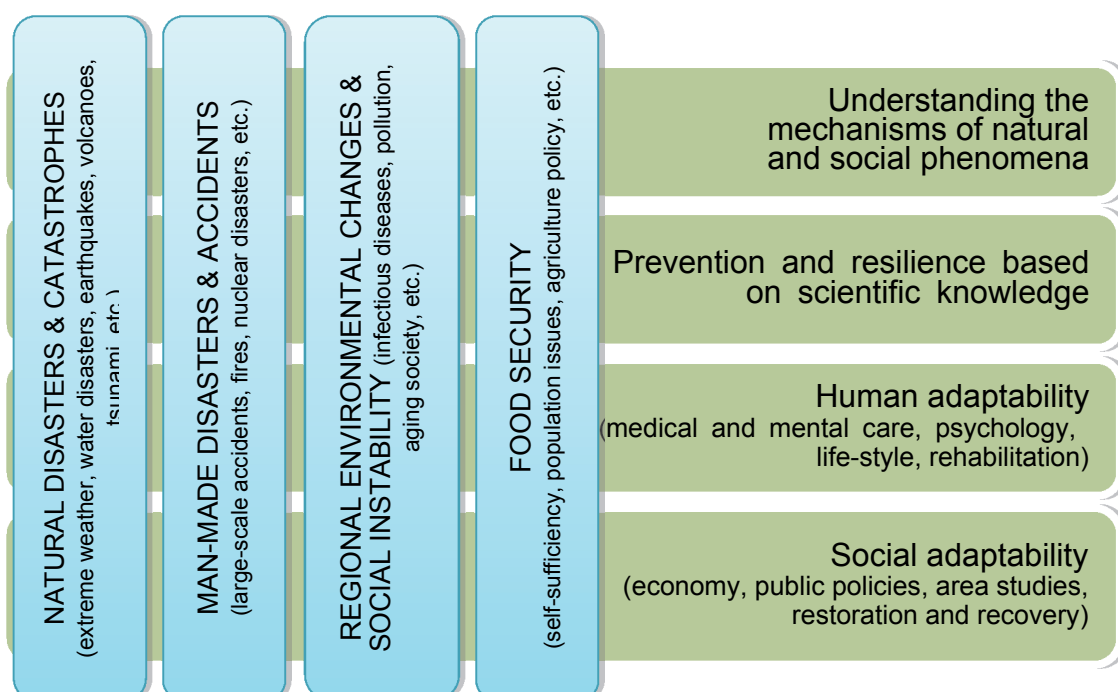
Students who have graduated from a Japanese university (4-year undergraduate program), or who have an equivalent qualification, and who are enrolled in any of the graduate schools and departments listed in **Table 2** below (or, as a special case, students enrolled in a Doctorate Program (Third-Year)) can apply to this program. Nationality, gender and age are no object.



The first semester (for students enrolling in April: April to September, for students enrolling in October: October to March) of the first academic year (or of the third academic year for Third-Year enrolment students) is set as **the Leading Program Preparatory Course**, during which applicants will attend the classes as program students (preparatory course students, Third-Year preparatory course students). They will then be evaluated for admission. Upon evaluation, those selected will be officially registered as program students from the second semester (students enrolling in April: from October, students enrolling in October: from April), and attend the course classes.

**Table 2 - Graduate schools and departments involved in the Global Survivability Studies Program (GSS)**

Graduate School of Education	All departments (Department of Education, Department of Clinical Education)
Graduate School of Economics	All departments (Department of Economics)
Graduate School of Science	Division of Earth and Planetary Sciences
Graduate School of Medicine	Department of Medicine and Medical Science, School of Public Health
Graduate School of Engineering	Department of Civil and Earth Resources Engineering, Department of Urban Management, Department of Environmental Engineering, Department of Architecture and Architectural Engineering, Department of Mechanical engineering and Science
Graduate School of Agriculture	All departments (Division of Agronomy and Horticultural Science, Division of Forest and Biomaterials Science, Division of Applied Life Sciences, Division of Applied Biosciences, Division of Environmental Science and Technology, Division of Natural Resource Economics, Division of Food Science and Biotechnology)
Graduate School of Asian and African Area Studies	All departments (Division of Southeast Asian Area Studies, Division of African Area Studies, Division of Global Area Studies)
Graduate School of Informatics	Department of Social Informatics, Department of Communications and Computer Engineering
Graduate School of Global Environmental Studies	All departments (Doctorate Program in Global Environmental Studies, Doctorate Program in Environmental Management)



**Fig.1 Scope of Global Survivability Studies**

## **4. Global Survivability Studies Program Curriculum**

### **(1) Why a 5-year program?**

In order to develop a broad-based knowledge and a specific expertise, to cultivate flexible thinking, determination and the ability to take action, and to get ready to lead in different areas of society, it is indispensable to gain a wide variety of experiences, which, in turn, requires time. Therefore, from the moment they enroll in the first part of the program (Master's Program in some cases), students create their 5-year plan and set their own objectives, and have the opportunity to choose a curriculum that will match their project.

### **(2) Leading Program Preparatory Course**

Program students are selected among students enrolled in the graduate schools and departments or divisions listed in **Table 2**. After enrollment in their respective graduate schools, students (up to 40 in April, a few for Third-Year enrolment and a few in October) are first recruited in the first semester (students enrolling in April: in April, and students enrolling in October: August to October), for a 6 months Preparatory Course (for students enrolling in April: April to September, and for students enrolling in October: October to March), as program students (preparatory course students).

During this period, program students (preparatory course students) are required to attend classes in their respective graduate school, understand the objectives and content of this program, and decide if the program is suitable for them, in terms of abilities and aptitudes. In order to assist all program students (preparatory course students) through this process during the Leading Preparatory Course period, they have to attend the GSS General Seminars. Program students (preliminary course students) enrolled in October have to attend recommended GSS program classes and interdisciplinary seminars for their preliminary course.

Besides the above, program students (preparatory course students) are required to write and submit a 5-year (3-year for Third-Year enrollment) research project. The research project can include voluntary internship and/or field training that take place during the Preparatory Course.

For students enrolling in April (including Third-year enrollment students), we will select a total of about 20 program students (and a few Third-Year enrollment students) from the Preparatory Course by the end of July, as official program students. For students enrolling in October, we will select a few students from the Preliminary Course by the beginning of March, as official program students.

### (3) Enrollment procedures for the Global Survivability Studies Program (GSS)

Regarding the curriculum flow for the 5-year Global Survivability Studies Program, please refer to **Table 3**. This program is conducted by the Inter-Graduate School Unit for Sustainable Development and Survivable Societies, the Center for the Promotion of Interdisciplinary Education and Research, Kyoto University.

**Table 3 - Global Survivability Science Program (GSS) curriculum flow (enrollment in April)**

Academic Year Semester	L1 1st	L1 2nd	L2 1st	L2 2nd*2	L3 1st	L3 2nd	L4 1st	L4 2nd	L5 1st	L5 2nd
Graduate School Degree Program	Course Work		Master Thesis or Doctorate Research Project		Academic Paper Writing, etc.				Doctorate Thesis	
Leading Program Preparatory Course (April enrollment)	General Seminar									
Leading Program Preliminary Course (October enrollment)	*1									
(a) Global Survivability Studies Program classes		8 Compulsory Classes Credits: ◎Introduction to Risk Studies ◎Sustainable Food Production ◎Human Safety and Security Studies ◎Global Survivability Studies Earn more than 2 credits before the end of L2 2nd semester *2								
◎Compulsory		2 credits from: ※ Information Analysis and Management (Informatics Common Class) ※ Information Analysis and Management Exercise (Informatics Common Class) ※ Clinical Psychology of War and Disaster ※ Environmental Risk Economics ※ Engineering Ethics and Management of Technology ※ Risk and Society ※ Cross-Graduate School Classes								
※ Optional Compulsory										
□Optional		□ 4 credits from the classes provided by each graduate school								
(b) Field training		Any available time *2								
(c) Internship		Any available time *2								
(d) Interdisciplinary seminar		Any available time *2								
(e) International academic exchange		Any available time *2								
(f) Industry / University Collaborative Project		Industry-University Collaborative Project (I) (Compulsory) *2 Industry-University Collaborative Project (II) (Optional)								
(g) International Cooperation Project	Any available time *2									

Note A \*1 In the Leading Program Preliminary Course seminar, students are required to attend at least 1 class from Introduction to Risk Studies and Human safety and Security Studies, at least 1 class from Information Analysis and Management, Information Analysis and Management Exercise and Environmental Risk Studies, as well as more than three interdisciplinary seminars.

\*2 Students are required to earn more than 2 credits of compulsory classes and complete more than one GSS activity before the end of L2, when they have to pass the Basic Doctoral Ability Qualification, to ensure that they have acquired a comprehensive academic knowledge. In order to enter the second stage of the doctoral program, students are required to pass this evaluation.

(a) Students have to earn all required credits by the end of the 5th year.

(b)~(g)All must be completed by the end of the 5th year.

Note B Third-Year enrollment students are required to complete all the curriculum by the end of the 3<sup>rd</sup> year (except part of the curriculum for which they received certification during preparatory course).

#### (4) About Academic Degree (Degree Policy)

- (a) Research: students are required to pursue their research within their department and graduate school, and will receive their academic degree at the end of the 5 years, if they meet the requirements of their graduate school.
- (b) Comprehensive academic knowledge: students are expected to gain a variety of experiences through this program, and to acquire a comprehensive academic knowledge, in order to become active leaders in our global society.

By achieving the two above elements, students in the Inter-Graduate School Program for Sustainable Development and Survivable Societies will be granted the following mention (tentative translation) on their diploma:

**Kyoto University hereby confers upon the candidate a Doctorate degree (Ph.D.) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of ○○○.**

OR

**Kyoto University hereby confers upon the candidate a Doctorate degree (○○○) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of ○○○, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.**

As seen in **Table 4** below, the name of the degree changes slightly depending on the Graduate School.

**Table 4 - Mention on the diploma bestowed after completion of the program (as of April 2016)**

Graduate School of Education	Kyoto University hereby confers upon the candidate a Doctorate degree (Education) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Education and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Economics	Kyoto University hereby confers upon the candidate a Doctorate degree (Economics) in recognition of the completion of the Doctorate Program of the Department of Economics, Graduate School of Economics, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Science	Kyoto University hereby confers upon the candidate a Doctorate degree (Science) in recognition of the completion of the Doctorate Program of the Division of Earth and Planetary Sciences, Graduate School of Science, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Medicine	Kyoto University hereby confers upon the candidate a Doctorate degree (Medicine) in recognition of the completion of the Doctorate Program of the Department of Medicine, Graduate School of Medicine, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’. OR Kyoto University hereby confers upon the candidate a Doctorate degree (Public Health) in recognition of the completion of the Doctorate Program of the School of Public Health, Graduate School of Medicine, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Engineering	Kyoto University hereby confers upon the candidate a Doctorate degree (Engineering) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Engineering, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Agriculture	Kyoto University hereby confers upon the candidate a Doctorate degree (Agriculture) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Agriculture, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Asian and African Area Studies	Kyoto University hereby confers upon the candidate a Doctorate degree (Area Studies) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Asian and African Area Studies, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.
Graduate School of Informatics	Kyoto University hereby confers upon the candidate a Doctorate degree (Ph.D.) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Informatics.
Graduate School of Global Environmental Studies	Kyoto University hereby confers upon the candidate a Doctorate degree (Global Environmental Studies) in recognition of the completion of the Doctorate Program of the Department of ○○○, Graduate School of Global Environmental Studies, and certifies that he/she completed ‘Inter-Graduate School Program for Sustainable Development and Survivable Societies’.

## **(5) Second Year Qualifying Examination (Basic Doctoral Ability Qualification)**

At the end of the first part of the program (the end of the 2<sup>nd</sup> year), depending on the department and the graduate school they are enrolled in, student may have to submit a Master thesis or an equivalent research work, and may then be granted a Master Degree or equivalent provided they met all the necessary requirements. Depending on their department and graduate school, students may have to submit a preliminary doctorate thesis, which is the equivalent of a Master thesis. In professional degrees, students are required to submit a theme research. For details on each of the above, please refer to the rules and requirements of each graduate school. In addition, at the same period, students are evaluated (Basic Doctoral Ability Qualification) to ensure that they have acquired a comprehensive academic knowledge and are required to pass this evaluation.

### **Screening criteria**

- (a) To have earned the required number of credits to complete the Master Program in their respective graduate schools (except students in the Graduate School of Medicine).
- (b) To have submitted a master thesis or its equivalent and have their academic knowledge deemed sufficient in their respective graduate schools (except students in the Graduate School of Medicine).
- (c) To have passed the entrance examination for a doctoral program or its equivalence (except students in the Graduate School of Medicine).
- (d) To have earned the required number of credits (including English proficiency) in the GSS program. (Students are required to earn more than 2 credits of compulsory classes and complete more than one practical curriculum.)
- (e) To write a summary of their master thesis or its equivalent in addition to a research plan for the doctoral program in English, and have their academic knowledge deemed sufficient to start a doctoral research (except students in the Graduate School of Medicine).
- (f) Students in the Graduate School of Medicine are required to write their research progress and plan in English, and have their academic knowledge deemed sufficient.
- (g) Oral examination for evaluation of (e) and (f) will be held at the beginning of March, in which each student will have to make a 10-minute presentation and answer questions for 15 minutes, in English.

## **(6) Graduation Requirements and Program Timeframe**

Students who aspire to graduate from the Global Survivability Studies Program and obtain a diploma such as described in **Table 4**, in parallel with the program and research in their respective graduate school, are required to attend and pass all the categories from (a) to (g).

### **(a) Global Survivability Studies Program classes**

In order to develop a broad-based knowledge and a specific expertise, students are required to attend classes offered by the 9 graduate schools involved in the program. They have to complete 4 compulsory subjects (8 credits), optional compulsory subjects (2 credits) and optional subjects (4 credits).

### **(b) Field training**

In order to carry out their research project with interdisciplinary/multidisciplinary perspective, students are required to plan and conduct their own field training.

### **(c) Internship**

To cultivate flexible thinking, determination and the ability to take action, students are required to participate in an internship in the industrial sector, a governmental organization, an international organization and a domestic or overseas university.

### **(d) Interdisciplinary seminar**

In order to cultivate a broad vision and to avoid immersing in his/her own discipline, students are required to participate in a variety of seminars covering a wide array of research subjects, and expected to gain insight through discussion.

### **(e) International academic exchange**

Students are required to either participate in an intensive international school along with students from other universities in Japan and abroad, or make presentations in international academic conferences, developing their adaptability and their ability to conduct their own research through lectures, training and discussions.

### **(f) Industry-University Collaborative Project**

Based on their own suggestions, students are required to design a few months project in partnership with the staff member (or a small group) of a company, and to conduct this project with this partner. Students are expected to find a partner ready to follow their ideas, to take the lead in conducting their project, and

thus develop the ability to carry their project through. The process of getting to know a company and getting them to know you also provides the students with the opportunity to create a career path. Students are recommended to implement several Industry-University Collaborative Projects.

**(g) International Cooperation Project**

Based on their own suggestions, students are required to plan a bilateral (or multilateral) research project or event, in partnership with an overseas collaborative organization (university, research institute, company), NPO, NGO, or an individual (a student from a foreign university for example), thus developing the ability to carry a project through in an international setting.

### (7) ePortfolio (The “GSSfolio Karuta 1.1” System)

The “GSSfolio” is a tool for GSS students to compile accurate records of their learning results. Every student must provide continuous updates to his/her academic adviser and other faculty members. The “GSSfolio (Karuta 1.1)” is an important factor in making decisions regarding the GSS fellowship and grade placement.

**Table 5 – Curriculum map**

GSS Goals	Coursework in Leading Subjects	Field training	Internship	Interdisciplinary seminars	International academic exchange	Industry–University Collaborative Project	International Cooperation Project
Knowledge of GSS Topics	◎			○	○		
Interdisciplinarity	◎			◎			
Project Management						◎	◎
Addressing Real World Problems		◎	○			○	○
Interpersonal Communication		○	○			○	○
Appropriate Scientific Communication					◎	○	
Multicultural Collaboration			◎				○
Demonstrating Initiative						◎	◎
Practicing Ethical Behavior		○	○			○	○
Toughness and Appealing Personality	○	○	○	○	○	○	○

◎: Goal required to complete the activity

○: Goal recommended to complete the activity

### (8) Homeroom

The program students are required to attend GSS homeroom during the 2nd semester in L1 and the 1st semester in L2. While exempt from credits, the GSS homeroom is compulsory for all program students. The GSS homeroom is held by GSS mentors about once a month and attendance is taken into account in the selection process of qualification, study fellowship, etc. In addition, about the students after the 2nd semester in L2, it is left to each student to participate the GSS homeroom when there is no special designation. But participation may be recommended depending on the contents of the GSS homeroom.

### (9) Final Screening and Certification

At the final stage of the GSS program, Final Screening and Certification will be held to examine whether both research for academic degree and comprehensive academic knowledge required in the GSS program have been positively achieved. All GSS students must pass this examination in order to be certified as having successfully completed the program.

### Screening Criteria

Examinees are GSS program students who fulfill, or are anticipated to fulfill, the following requirements.

- (a) Students who submitted a Petition for Doctoral Dissertation Review.
- (b) Students who have completed the following curriculum, as established in the GSS course guideline, by the time they earn their doctoral degree.
  - a. Global Survivability Studies Program classes
  - b. Field training
  - c. Internship
  - d. Interdisciplinary seminar
  - e. International academic exchange (Former International School)
  - f. Industry-University Collaborative Project
  - g. International Cooperation Project
- (c) Students who have admitted to attain GSS values of a global leader (10 leadership goals), as established in the GSS course guideline, by the time they earn their doctoral degree.
- (d) Students whose issues and activities from the perspective of Global Survivability Studies contribute excellently to their doctoral dissertation. (Students must write clearly about the relationship between the GSS Program and arguments, methods, analysis etc. in their own doctoral dissertation in the summaries).
- (e) Students who recorded evidence of (b) and (c) in the GSSfolio.
- (f) The GSS Program final screening committee, which is formed for each candidate, shall investigate whether the candidate satisfy the above criteria (b) (c) and (d).
- (g) For above investigation, the candidate shall make a presentation in English at the final screening and certification meeting based on his/her summaries of Doctoral Dissertation and Relationship between GSS Program Activities and Doctoral Dissertation.

## 5. Curriculum Categories

### (a) Global Survivability Studies Program classes (Table 6)

**Compulsory classes** (4 classes, 8 credits) : The 4 classes below are compulsory for all students involved in the program, and are designed to provide a common set of knowledge in Global Survivability Studies.

- Introduction to Risk Studies (2 credits, Graduate School of Medicine, 2nd semester)
- Sustainable Food Production (2 credits, Graduate School of Agriculture, 1st semester)
- Human Safety and Security Studies (2 credits, Graduate School of Education, 2nd semester)
- Global Survivability Studies (2 credits, Graduate School of Engineering, 1st semester)

**Optional Compulsory classes** (2 credits) : Students are required to choose classes (corresponding to at least 2 credits) among the followings.

- Information Analysis and Management (2 credits, Informatics Common Classes, Graduate School of Informatics, 1st and 2nd semesters)
- Information Analysis and Management Exercise (1 credits, Informatics Common Classes, Graduate School of Informatics, 1st and 2nd semesters)
- Clinical Psychology of War and Disaster (2 credits, Graduate School of Education, 1st semester)
- Environmental Risk Economics (2 credits, Graduate School of Economics, 2nd semester)
- Engineering Ethics and Management of Technology (2 credits, Graduate School of Engineering, 1st semester)



- Risk and Society (2 credits, Graduate School of Asian and African Area Studies, 1st semester)
- Transdisciplinary Graduate Program classes (not including GSS compulsory classes)

Please refer to URL : <http://www.kyoto-u.ac.jp/ja/education-campus/cross/>

**Optional classes** (4 credits) : The graduate schools and departments involved in the program recommend various classes for the Global Survivability Studies Program in the field of safety and security in **Table 6**. Students are required to complete at least 4 credits from this category.

It should be noted that students have to submit an “auditing student application form” to their own graduate school during the prescribed period, when they wish to attend classes offered by other graduate schools. To know if their graduate school admits the credits they earn in the GSS program, students need to refer to the requirements of their respective graduate school (see **Table 8** on page 20).

#### **(b) Field training**

Students are required to take part in one of the field trainings below and to get approval after assessment from the curriculum committee. Before conducting their training, students need to submit their research activity plan in the GSSfolio to their academic supervisor and GSS mentor(s) and receive their permission.

- Overseas Field Training : Students take part in a field training (observation, experiments, research, etc.) of at least one week abroad.
- Domestic Field Training : Students take part in a field training (observation, experiments, research, etc.) of at least one week in Japan.

#### **(c) Internship**

Students are required to take part in one of the internships below and to get approval with assessment from curriculum committee. Before conducting their internship, students need to submit their research activity plan in the GSSfolio to their academic supervisor and GSS mentor(s) and receive their permission.

- Overseas Internship : Students take part in an internship of at least one week in a research institute or a company overseas.
- Domestic Internship : Students take part in an internship of at least one week in a research institute or a company in Japan.

#### **(d) Interdisciplinary seminar**

Students are required to take part in 15 sessions of interdisciplinary seminars and to get certification. 4 sessions out of 15 should be leadership development workshop sessions.

#### **(e) International academic exchange**

Students are required to either take part in one of the international schools (about a week) below and to get certification upon assessment by the curriculum committee, or make presentations as the first author of the paper at different international conferences or international academic meeting. Before attending the school or making a presentation, students need to submit their research activity plan in the GSSfolio to their academic supervisor and GSS mentor(s) and receive their permission.

- Nagoya University • Kyoto University UNESCO IHP International Hydrological Program
- United Nations University • Kyoto University Training Course
- Domestic Training Course or School held occasionally in Japan
- International Training Course or School held occasionally overseas

#### **(f) Industry-University Collaborative Project**

Students are required to conduct one of the collaborative projects below and to get certification upon assessment

by the curriculum committee. Before conducting the project, students need to submit their research activity plan in the GSSfolio to their academic supervisor and GSS mentor(s) and receive their permission.

- Industry-university collaborative project I (Compulsory)
- Industry-university collaborative project II (Optional)

#### (g) International Cooperation Project

Students are required to conduct the project below and to get certification upon assessment by the curriculum committee. Before conducting the project, students need to submit their research activity plan in the GSSfolio to their academic supervisor and GSS mentor(s) and receive their permission.

- International Cooperation Project

**Table 6 - Global Survivability Studies Program (GSS) class Categories**

#### Compulsory classes

Graduate School	Compulsory Classes Number	Code	Class Name	Professor in Charge	Credits	Semester	Time	Remarks
Medicine	GSS-1	Z007	Introduction to Risk Studies	Kihara et al.	2	2nd	Wed.1	English
Agriculture	GSS-2	X001	Sustainable Food Production	Kuriyama et al.	2	1st	Fri.3・4	alternate week English
Education	GSS-3	8940000	Human Safety and Security Studies	Kudo, Lahournat	2	2nd	Thu.1・2	English
Engineering	GSS-4	10F113	Global Survivability Studies	Takara et al.	2	1st	Tue.5	English

#### Compulsory Optional classes

Graduate School	Code	Class Name	Professor in Charge	Credits	Semester	Time	Remarks
Informatics	8018000	Information Analysis and Management	Asano, Kato	2	1st	Mon.4	Students are encouraged to take both classes as a set.
Informatics	8019000	Information Analysis and Management, Exercise	Kato, Asano	1	1st	Mon.5	
Informatics	8018001	Information Analysis and Management	Asano, Kato	2	2nd	Mon.4	Same content as 1 <sup>st</sup> semester
Informatics	8019001	Information Analysis and Management, Exercise	Kato, Asano	1	2nd	Mon.5	
Education	8942000	Clinical Psychology of War and Disaster	Kudo	2	1st	Thu.2	☆ English
Economics	6749000	Environmental Risk Economics	Ida, Ito	2			not held in 2016 English
Engineering	10G057	Engineering Ethics and Management of Technology	Sawaragi et al	2	1st	Thu.3	
Asian and African Area Studies	5133	Risk and Society	Nishi, Yoshikawa	2	1st	Thu.4	English
Transdisciplinary Graduate Program classes (Type A)◇				2			

☆ It will start in April 2016 biennially.

◇ Please refer to URL: <http://www.kyoto-u.ac.jp/ja/education-campus/cross>

**Optional classes: recommended classes from each graduate schools and departments participating in the Global Survivability Studies Program.**

Note: This list is as of April 2016. Due to changes in the graduate school educational system, they may be subject to change or be added. Students can take changed and added classes if they are listed in the syllabi of the upcoming year.

Graduate School	Code	Class Name	Professor in Charge	Credits Semester		Time	Remarks
Education	6114000	International Frontiers in Education and Research A	Manolo	2	1st	Intens.	English *
	6116000	International Frontiers in Education and Research C	Sito, Standish	2	2nd	Intens.	English *
	6232000	Advanced Studies: Comparative Education I	Sugimoto	2	1st	Fri.4	*
	6276000	Advanced Studies :Curriculum and Instruction I	Nishioka	2	1st	Wed.3	*
	6277000	Advanced Studies: Curriculum and Instruction II	Ishii	2	2nd	Tue.2	*
	6304000	Seminar on Pedagogy I	Suzuki, Yamana	2	1st	Wed.3・4	alternate week *
	6305000	Seminar on Pedagogy II	Yamana	2	2nd	Wed.3・4	alternate week *
	6480000	Advanced Studies: Developmental Science I	Myowa, Moriguchi	2	1st	Tue.2	*
	6481000	Advanced Studies: Developmental Science II	Myowa, Moriguchi	2	2nd	Tue.2	*
	7261000	Research on Educational and Social System	Nakazawa	2	2nd	Intens.	*
	7268000	Studies in Lifelong Education I	Watanabe	2	2nd	Tue.4・5	alternative week
	7484000	Readings in Lifelong Education	Nishioka	2	1st	Mon.3	*
	8826000	Seminar on Clinical Consultation in Field	Kaito, Takahashi	4	both	Wed.3 (1 <sup>st</sup> ) Tue. 5・6 (2 <sup>nd</sup> )	* doctoral program
	8941000	Clinical Psychology of Violence and Crime	Kudo	2	-	-	☆ *
Economic	2091000	International Political Economy of Food and Agriculture 1	Hisano	2	1st	Mon.3-5	alternate week English
	2094000	International Political Economy of Food and Agriculture 2	Hisano	2	2nd	Mon.3-5	alternate week English
	2183000	Environmental Economics Analysis A	Morotomi	2	1st	Wed.1・2	alternate week
	2185000	Environmental Economics Analysis B	Morotomi	2	2nd	Wed.1・2	alternate week
	5009000	Intermediate Macroeconomics	Katayama	2	1st	Wed. 2	
	5011000	Intermediate Microeconomics	Kojima	2	1st	Wed. 2	
	5015000	Intermediate Econometrics	Nishiyama	2	2nd	Tue. 1	
	5025000	Socio-economics Theory A	Sasaki	2	1st	Tue.3	
	5035000	Introduction to Economic Policy A	Iwamoto et al.	2	-	-	not open
	6043000	Industrial Economics	Ida	2	1st	Wed.3	
	5021000	Business Economics Theory	Sugiyama	2	2nd	Wed.2	
	6291000	Management Accounting Theory A	Sawabe	2	2nd	Tue. 2	
	6744000	Development Economics 1	kono	2	1st	Thu.1	English
	6746000	Development Economics 2	Kono	2	2nd	Thu.1	English

Economic	6787000	Welfare Economics	Oka	2	2nd	Thu.4・5	alternate week
Science	5016	Atmospheric Physics I A	Yoden et al.	2	1st	Wed.2	Jpn.,Eng.
	5017	Atmospheric Physics I B	Yoden et al.	2	2nd	Mon.4	English ★
	5020	Atmospheric Physics III A	Shiotani et al.	2	1st	Thu.3	not held in 2016
	5021	Atmospheric Physics III B	Tsuda et al.	2	2nd	Mon.3	
	5044	Environmental Geoscience I A	Terajima et al.	2	1st	Mon.5	
	5045	Environmental Geoscience I B	Kamai et al.	2	2nd	Thu.2	★
	5052	Applied Meteorology II A	Ishikawa et al.	2	1st	Thu.4	
	5053	Applied Meteorology II B	Ishikawa et al.	2	2nd	Thu.2	English
	5217	Field Lab. in Multi-scale Earth Dynamics I	Yoden et al.	2	irr.	-	Jpn., Eng.
	5218	Field Lab. in Multi-scale Earth Dynamics II	Tsuda et al.	2	irr.	-	Jpn., Eng.
	6002	Multi-scale Earth Dynamics: Solid Earth Sciences	Hirahara et al.	2	1st	Mon.4・5	Jpn., Eng.
	6003	Multi-scale Earth Dynamics: Geomaterial Sciences	Hirajima et al.	2	1st	Mon.4・5	Jpn., Eng. ★
Medicine	H118	Epidemiology I (Introduction to Epidemiology)	Nakayama	1	1st	Fri. 3・4	
	H009	Socio-epidemiology I	Kihara Masako	2	1st	Mon. 3	
	H019	Socio-epidemiology II	Kihara Masako	2	2nd	Mon. 3	
	H020	Human Ecology	Sakamoto	2	2nd	Mon.4	
	H027	Health, Medical and Welfare System	Satomura	2	2nd	Thu. 3・4	1 <sup>st</sup> part
	H028	International Health	Satomura	2	2nd	Thu. 3・4	2 <sup>nd</sup> part
	H030	Health Informatics	Nakayama	2	2nd	Fri. 2	
	H070	Infectious Disease Epidemiology	Kihara	1	1st	Thu. 2	2 <sup>nd</sup> part English
	H124	Occupational health and environmental health sciences	Koizumi	1	1st	Thu. 2	1 <sup>st</sup> part
	H088	Environment and Infection	Nishibuchi	2	2nd	Tue.5	
	H128	Health Care Systems and Policies around the World	Imanaka	1	1st	Wed. 2	1 <sup>st</sup> part, English
	H097	Healthcare System and Policy	Imanaka	1	1st	Wed. 2	2 <sup>nd</sup> part
Engineering	10A216	Hydrology	Tachikawa, Ichikawa, Yorozu	2	2nd	Tue.2	English ★
	10A222	Water Resources Systems	Hori, Tanaka.	2	1st	Tue.1	☆
	10A632	Urban Metabolism Engineering	Takaoka, Kurata, Oshita	2	1st	Tue.3	English
	10A626	Advanced Environmental Health	Takano	2	1st	Tue.4	
	10B052	Control for Structural Safety	Nakashima, Kurata	2	2nd	Wed.1	
	10B222	Environmental Control Engineering, Advanced	Harada, Uetani	2	1st	Mon.2	
	10B241	Urban Disaster Mitigation Engineering	Kawase, Matsushima	2	2nd	Tue.3	
	10B407	Robotics	Matsuno	2	2nd	Mon.2	
	10F019	River Engineering and River Basin Management	Hosoda, Kishida, Onda	2	1st	Wed.1	
	10F065	Hydraulic Engineering for Infrastructure Development and Management	Hosoda, Tachikawa et al.	2	2nd	Tue.3	English
	10F077	River Basin Management of Flood and Sediment	Nakagawa et al.	2	1st	Mon.1	☆
	10F100	Applied Hydrology	Hori et al.	2	1st	Wed.4	English

Engineering	10F103	Case Studies Harmonizing Disaster Management and Environment Conservation	Takara et al.	2	1st	Mon.4	English
	10F219	Quantitative Methods for Behavioral Analysis	Fujii	2	1st	Mon.5	
	10F223	Risk Management Theory	Yokomatsu, Cruz	2	2nd	Wed.3	English
	10F241	Construction of Geotechnical Infrastructures	Kimura, Kishida	2	2nd	Fri.1	
	10F245	Open Channel Hydraulics	Hosoda, Onda	2	1st	Fri.1	English ★
	10F261	Earthquake Engineering/ Lifeline Engineering	Kiyono, Igarashi	2	1st	Tue.4	English
	10F267	Hydro-Meteorologically Based Disaster Prevention	Takara et al.	2	1st	Mon.3	☆
	10F269	Coastal and Urban Water Disasters Engineering	Mase et al.	2	1st	Wed.2	★
	10F439	Environmental Risk Analysis	Yoneda et al.	2	1st	Wed.4	English
	10F458	New Environmental Engineering II, Advanced	Takaoka et al.	2	2nd	Mon.5	English
	10F464	Hydrologic Design and Management	Tachikawa, Ichikawa	2	1st	Fri.2	
	10F466	Basin Environmental Disaster Mitigation	Fujita et al.	2	1st	Mon.3	★
	10G013	Control Theory for Dynamic Systems	Sawaragi et al.	2	1st	Tue.2	
	10X333	Disaster Risk Management	Tatano, Yokomatsu	2	1st	Wed.4	English
	10Z003	Urban Transport Management	Nakagawa, Fujii et al.	1	1st Intens.	Wed.4	◇
Agriculture	693287	Disaster Information	Tatano et al.	2	1st	Wed.3	◆
	BA01	Forest Resources and Society	Kanzaki	2	2nd		★ possibly English
	BA03	Tropical Forest Environments	Kitajima	2	2nd	tbd	☆ possibly English
	BA04	Tropical Forest Resources	Kitajima	2	1st		★ possibly English
	BA11	Mountain Conservation, Advanced	Kosugi, Nakatani	2	2nd	-	★
	BA32	Bio-based Materials Physics II	Yano et al.	2	1st	Fri.3	☆
	CA11	Plant Nutrients -Function and Acquisition-	Matoh, Kobayashi	1	1st Intens.	Mon. 3-6	possibly English
	CA13	Metabolic Science of Forest Plants and Microorganisms	Umezawa et al.	1	1st Intens.	Mon. 3-6	
	CA28	Applied Microbiology for Human Life	Ogawa, Sakai, Kita	1	2nd Intens.		★ English
	CA29	Advanced Applied Biochemistry	Ueda Kazumitsu, Ueda Mitsuyoshi, Watanabe	1	2nd Intens.		★ English
	CA30	Bioorganic Chemistry	Hiratake, Miyagawa	1	2nd Intens.	tbd	☆ English
	EA21	Hydrological Environmental Engineering	Kawashima	2	1st	Tue.2	★ possibly English
	FA49	Regional Environmental Economics 1A	Umetsu	2	1st		possibly English
	FA50	Regional Environmental Economics 1B	Umetsu	2	2nd		possibly English

Agriculture	FA51	Regional Environmental Economics 2A	Umetsu	2	1st		possibly English
	FA52	Regional Environmental Economics 2B	Umetsu	2	2nd		possibly English
	FA55	Agricultural and Environmental Policy 2A	Itoh	2	1st	Mon.3	possibly English
	FA56	Agricultural and Environmental Policy 2B	Itoh	2	2nd	Mon.3	possibly English
	FA57	Forest Policy and Economics 1A	Kuriyama	2	1st	Thu.2	possibly English
	FA58	Forest Policy and Economics 1B	Kuruyama	2	2nd	Thu.2	possibly English
	FA59	Forest Policy and Economics 2A	Kuriyama	2	1st	Thu.2	possibly English
	FA60	Forest Policy and Economics 2B	Kuriyama	2	2nd	Thu.2	possibly English
	FA83	Forest and Resource Economics A	tbd	2	1st	Wed.2	English
	FA84	Forest and Resource Economics B	Mitani	2	2nd Intens.	Wed.2	possibly English
Asian and African Area Studies	1102	Ecological History II	Furusawa	2			not held in 2016
	1104	Environmental Ecology II	Takeda	2	1st	Tue.2	
	2302	Social and Culture Dynamics II	Hirano	2	2nd	Wed.2	
	2303	Socio-Ecological History I	Shigeta	2	2nd	Tue.5	
	3112	Theory of Peace and Coexistence	Nakamizo	2	1st	Fri.3	
	3113	Interdisciplinary Approach to Sustainable Humanosphere	Kouno	2	2nd	Thu.1	
	5107	Environment and Infection	Nishibuchi	2	2nd	Tue.5	
Informatics	3287000	Disaster Information	Tatano et al.	2	1st	Wed.3	Japanese
	3291000	Emergency Management	Hayashi et al.	2	1st	Wed.1	not held in 2016 Japanese
	3646000	Remote Sensing Engineering	Yamamoto et al.	2	2nd	Mon.4	Japanese
	3683000	Radio and Optical Measurement of Earth's Atmosphere	Tsuda et al.	2	2nd	Mon.5	English
Global Environmental Studies	3213	Environmental Infrastructure Engineering	Katsumi, Inui	1	1st	Wed. 1	English
	3251	Watershed Water Environment Management	Fujii, Tanaka, Harada	1	1st	Tue.1	English

\*: Regarding the classes provided by the Graduate School of Education, students are required to check the requirement for class registration with the professor in charge before they attend the class.

Intens.: intensive class.

irr.: irregular schedule.

◇: Classes offered by the Transport Policy Research Unit, Graduate School of Engineering.

◆: Classes offered by the Graduate School of Engineering and provided by the Graduate School of Informatics.

☆: Bi-yearly class that starts in 2017.

★: Bi-yearly class that will start in 2016.

Possibly English: be able to offered in English

## 6. Requirements for Completion

As indicated in **Table 7** below, each graduate school requires a certain number of credits in order to complete their Master and Doctorate programs. Regarding the special classes offered by the Global Survivability Studies Program and the classes provided by each graduate school, students need to refer to the requirements of their graduate school to know how many of which they can take (see **Table 8** below).

**Table 7 - Graduation requirements for the graduate schools and departments involved in the Inter-Graduate School Program for Sustainable Development and Survivable Societies (as of 2016)**

Graduate School	Department or Division	Master Program Required Credits	Doctorate Program Required Credits	Remarks
Education	Department of Education	30 credits Master thesis	Doctoral thesis	Doctorate: specialized educational training course only At least 20 credits
	Department of Clinical Education			
Economics	Department of Economics	30 credits Master thesis	Doctoral thesis	
Science	Division of Earth and Planetary Sciences	30 credits Master thesis	Doctoral thesis	
Medicine	Department of Medicine and Medical Science	30 credits • Doctoral thesis		4-year course
	School of Public Health	30 credits	6, 13 or 19 credits Doctoral thesis	Doctorate Program: medical (13 credits), non-medical (19) and professional (6) degree
Engineering	Civil and Earth Resources Engineering	30 credits Master thesis	10 credits Doctoral thesis	
	Urban Management			
	Environmental Engineering			
	Architecture and Architectural Engineering			
	Mechanical engineering and Science			
Agriculture	Agronomy and Horticultural Science	30 credits Master thesis	Doctoral thesis	
	Forest and Biomaterials Science			
	Applied Life Sciences			
	Applied Biosciences			
	Environmental Science and Technology			
	Natural Resource Economics			
Asian and African Area Studies	Southeast Asian Area Studies	40 credits Preliminary doctoral thesis Doctoral thesis		5-year course
	African Area Studies			
	Global Area Studies			
Informatics	Social Informatics	30 credits Master thesis	6 credits Doctoral thesis	
	Communications and Computer Engineering			
Global Environmental Studies	Doctorate Program in Global Environmental Studies		6 credits Doctoral thesis	
	Doctorate Program in Environmental Management	30 credits Master thesis	14 credits Doctoral thesis	10 credits each for internship, Master, Doctorate

**Table 8 - Credit requirements for each graduate school involved in the Global Survivability Studies Program**

Graduate School of Education	As a rule, special classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies and classes provided by other graduate schools cannot be used as credits for degree completion in the Departments of Education of Clinical Education. However, if students register in advance for a class and receive authorization for it, it may then be used credits for degree completion.
Graduate School of Economics	Within their credit requirements, students registered in the Inter-Graduate School Program for Sustainable Development and Survivable Societies can select a maximum of 6 credits from the special lectures offered by this program.
Graduate School of Science	According to the Master Program graduation requirements of the Division of Earth and Planetary Sciences, special classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies, classes provided by other departments and graduate schools, as well as the Faculty of Science common classes can be used as credits for degree completion, up to a total of 4 credits. However, in order to be able to use these credits, students have to ask their academic supervisor within 2 months after the start of each semester, and obtain an authorization from the department faculty board.
Graduate School of Medicine	Special classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies, as well as classes provided by each graduate school cannot be used to complete the credit requirements imposed by the Department of Medicine and Medical Science and the School of Public Health.
Graduate School of Engineering	Students have to complete the number of credits required for each class type (from the list of classes provided in the graduation handbook of each department), and the total number of credits required for graduation. However, classes of the Graduate School of Engineering that are not in the list, as well as classes approved for credits in other graduate schools, and classes approved by the director of the department upon student's request can all be used as credits for degree completion. Details vary depending on the department.
Graduate School of Agriculture	Classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies can be used as credits for master degree completion upon approval of the Graduate School faculty meeting. Please note that the procedures and requirements differ depending on the departments, and students need to inquire the details in advance.
Graduate School of Asian and African Area Studies	Credits from classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies and classes provided by other graduates schools can be used as credits for degree completion, up to a total of 10 credits, provided that students submit auditing student applications to the curriculum office by the deadline, if they attend the classes offered by other graduate schools. In the case of Third-Year enrollment students, they need 10 credits certified by their own graduate school.
Graduate School of Informatics	Upon approval of their academic supervisor, students of the Department of Social Informatics who registered for the Leading Graduate School Program can use classes offered by this program as credits for degree completion, up to a total of 10 credits. In the Department of Communications and Computer Engineering, classes offered by the Inter-Graduate School Program for Sustainable Development and Survivable Societies can only be used as surplus credits (not valid as credit for degree completion), unless students obtain approval beforehand.
Graduate School of Global Environmental Studies	In the Master Program, classes from other graduate schools can be uses as credits for degree completion, up to a total of 4 credits.



## **7. Academic Supervisors • GSS Secondary Academic Supervisors • GSS Mentors • Advisers**

In this Program, each student is assigned academic supervisors (main supervisor and secondary supervisor) affiliated to the graduate school the student is enrolled in. Moreover, in order to receive appropriate guidance regarding the GSS program, they are also assigned a GSS secondary academic supervisor from another graduate school as well as GSS mentors.

Main and GSS secondary academic supervisors must be faculty members, industry-government-academy collaboration advisers, or international advisers affiliated with the program.

Details of faculty members, industry-government-academy collaboration advisers and international advisers are determined by the Inter-Graduate School Unit for Sustainable Development and Survivable Societies, Center for the Promotion of Interdisciplinary Education and Research, Kyoto University.

### **(1) Academic Supervisors**

The program students are required to register their academic supervisors (secondary supervisors as well if applicable) to the GSS office. Students need to participate in the program upon consultation with and approval from their academic supervisors. Any changes of their academic supervisors need to be reported to the GSS office. In the case that their academic supervisors are not "program faculty members", they will be registered as "program cooperators" until their students complete the program.

### **(2) GSS Secondary Academic Supervisors**

Program students are required to choose and register for one Kyoto University faculty member (full-time teaching positions) who belongs to a different graduate school from their own (the faculty members who have additional posts in their own graduate school, can not be candidates), as their GSS secondary academic supervisor. They can also add another GSS secondary academic supervisor from industry-government-academy collaboration advisers, and international advisers affiliated with the program. They need to decide their GSS secondary academic supervisor after an interview with him/her. They are also required to report any changes of GSS secondary academic supervisor to the GSS office. In the case that the person they chose is not a "program faculty member", he/she will be registered as "program cooperators" until their students complete the program.

### **(3) GSS Mentors**

Program students are assigned GSS mentors in order to receive appropriate guidance regarding the GSS program. Students carry out the GSS curriculum in constant contact with them. One program student is assigned one or two GSS mentors. The details are announced at the beginning of the semester.

### **(4) Advisers**

Program students are able to receive advice from industry-government-academy collaboration advisers and international advisers affiliated with the program, who have been selected by the Inter-Graduate School Unit for Sustainable Development and Survivable Societies. Students are also able to choose their GSS secondary academic supervisor among these advisers. Program students are required to attend annual industry-government-academy collaboration advisers' conference and annual international advisers' conference and may also be required to make a presentation there.

## **8. Financial Support for Students Enrolled in the Program**

In order to reduce economic burden and allow the program students to fully concentrate on the program and their research, the program provided qualifying program students with financial supports as below. Such financial supports will be available until March 2018, when the program for Leading Graduate Schools, MEXT ends.

### **(1) Study fellowship**

The program provides qualifying students who meet all the following requirements with a Study Fellowship in order to provide financial support (55 students received it in 2015, of which 14 L4 students, 10 L3 students, 13 L2 students and 18 L1 students). For further details, please refer to the application guideline, which will be available twice a year, in mid-January and mid-June. Eligibility for the fellowship will be evaluated each academic term. For this evaluation, those who wish to continue to be fellowship students must submit a request for continuity by the appointed time. See the conditions of application below:

- (a) Be enrolled as a program student
- (b) Receive no financial aid from any other kind of scholarship (except tuition waiver of Kyoto University)
- (c) Have no income from any part time job, etc.
- (d) Have been enrolled less than 5 years (not including period of temporary absence) in a graduate school at Kyoto University
- (e) Evaluated to have achieved excellence based on their grades and scores in this program

### **(2) Research grant**

The program provides students conducting creative research with a Research Grant up to 1,000,000 yen per person and per fiscal year in 2016 (60 students granted in 2015, of which 18 L4 students, 10 L3 students, 13 L2 students and 19 L1 students). However upper limit of the research grant may be subject to change according to the whole program budget. Please refer to the application guideline for further details, which will be available mid-January and the end of July.

### **(3) Budget for GSS curriculum**

Program students who does not apply for the research grant or whose application for the research grant is rejected are granted a budget of 300,000 yen per fiscal year, which can be used for conference fees and other educational expenses. However upper limits of the budget may be subject to change according to the whole program budget.

## **9. Syllabi**

The syllabi of curriculum categories (a) to (g) can be found in the following pages.

### **(a) Compulsory classes, Compulsory Optional classes and Optional classes**

- 1) The information contained in the following syllabi is as of March 2016 and replicates the formats used by each graduate school.
- 2) Due to change in staff and/or in curriculum content, the information in the following syllabi may be subject to change. Students can take changed and added classes if they are listed in the syllabi of the upcoming year.
- 3) Students are required to register for each class, and also need an additional registration form for classes taken outside their graduate school.