



# Global Leader Program for Social Design and Management

# **Program Guidance**

April 17, 2018













GENDER









Comprehensive coursework is designed to help students build a sound knowledge base that bridges multiple areas of expertise. The coursework consists of one compulsory course and courses from the following three core areas.

Compulsory course 'Social Design and Global Leadership'

Global society and public policy (74 courses)

Advanced science technologies (63 courses)

Issue solving subjects (13 courses)

# Program Completion Requirement



### (1) Comprehensive coursework

- a) Pass <u>required course</u>: 'Social Design and Global Leadership' 2credits
- b) Pass <u>compulsory electives</u> : either 'Engineering Competency I [IS-1]' or 'Case Study (Project Based Learning) [IS-7]' 2credits

\*The required course and compulsory electives must be taken within two years after starting the program.

c) Take required credits from 3 Core Courses

4credits from Advanced Science Technologies Courses

4credits from Global Society & Public Policy Courses

2credits from Issue Solving Courses

\*Out of 10 credits, 6 must be taken from English taught courses.

\*All the required course and credits must be taken by the end of your D2 completion timing.

\*Total number of credits you need to earn from a), b), c) above will be 14.

(2) Pass Qualifying Examination (Master students only)

(3) Pass Research Design Workshop

(4) Pass International Project

### Final Exam (Supplementary paper of 10 pages & Interview)





### Goal

- Acquire skills to identify social issues and design solutions, primarily in the form of problem definition, while taking an active role as a global leader
- Development of the students' ability to perform group work
- Acquisition and development of leadership capabilities

### Learning Process

- One lecture, followed by group work
- Intensive discussions about cases

### Case study on:

International space collaboration, Energy security
 International public health, International economic management

### Learning Outcomes

- Problem definition skills
- Refined presentation skills
- Proficient communication skills





### Social Design and Global Leadership [Compulsory Course]



### Schedule of AY2018

	Ι	Introduction	Prof. Shiroyama
Apr. 21 13:00-17:00	Π	Basic concepts and methods for social design and management and Medical Innovation	Prof. Suzuki
Apr. 22 13:30-17:00		Energy Security	Prof. Tanaka
Apr. 30	Ι	International space collaboration	Prof. Nakasuka
9:00-17:00	Π	International economic management	Prof. Kawai
May. 12	Ι	International public health	Prof. Shibuya
13:30-17:00	Π	Group formation for final presentation	
Jul. 7 9:00-13:30		Presentation by groups and comments	

Project Based Learning on the Medical, Environmental and IT Innovation and the Role of Public Policy [Elective Compulsory]

- Elective compulsory from AY2016
- Students are encouraged to identify problems in the society, and to experience specific project, design/planning, launch, operation, execution, and evaluation to refine problem solving abilities.
- Students should develop the ability to formulate and evaluate options for problem-solving
- Schedule of AY2018 (A1&A2)

TBD	Introduction
	Case 1. Health Care (Yuji Yamamoto)
	Case 2. Pharmaceutical R&D (Hiroyuki Mitani)
TBD	Case 3. Education and Human Resource (Daisuke Asano)
	Case 4. Information Security (Yuki Takishima)
	Case 5. Social Innovation and NPO (Kensuke Onishi)
	Grouping discussion
TBD	Follow up
TBD	Group Presentation, Evaluation and Feedback

## Engineering Competency I (Project Based Learning) [Elective Compulsory]

- **Business solution** 
  - Real-life problems from company
  - not only idea but product and/or verification
  - 5 month group work
- Team
  - Students from different lab, department, and nationality
  - Company member
- Foster
  - Teamwork
  - Project management
  - Needs-oriented R&D approach







 2018 PBL planned from October, 2018 to February, 2019



Final Presentation

 Call will be announced on the GSDM website (http://gsdm.u - tokyo.ac.jp/) in September, 2018





An overview of epistemological and methodological concepts, issues and techniques concerning the production of scientifically relevant knowledge in social sciences

Keywords

Social Science Methodology, Social Science Epistemology, Research Methods

### Lectures (Schedule of AY2018 : TBD)

- 1: Introduction to the Course
- 2: Science, Epistemology and Methodology
- 3: Methodology of Social Sciences
- 4: Social Science Research and Its Stages
- 5: Quantitative Methods: Presentation of the Methods
- 6: Quantitative Methods: Cost-Benefit Analysis
- 7: Qualitative Methods: Overview of the Qualitative Methods
- 8: Qualitative Methods: Case Study
- 9: Climate Change: Technological and Social Perspectives
- 10: Case Study
- 11: Ethics of Social Science Research
- 12: Objectivity and Emancipation in Social Science
- 13: Wrap-up Lecture

### Outputs

- Research design presentations through working groups
- Deeper understanding on social science methodological possibilities and their limitations



### Advanced Study of Science & Technology [Advanced Science & Technology Course]

### <Lecture of AY2017>

Oct. 8	1. Comparative Health System	(Prof.	Kobayashi Y)
001.0	2. Three-dimensional fusion image for simulation of Neurosurgery	(Prof.	Nakatomi H)
	3. Robot Assisted Surgical System (1)	(Prof.	Mitsuishi M)
	4. Robot Assisted Surgical System (2)	(Prof.	Mitsuishi M)
Oct. 14	1. Technology transfer and boundary of organization	(Prof.	Kano S)
	2. Technology maps for industry analysis	(Prof.	Kano S)
	3. Paris agreement and green growth	(Prof.	Matsuhashi R)
	4. Carbon nanotubes and nanotechnology	(Prof	. Maruyama S)
Nov. 4	1. System safety: resilience	(Prof	. Furuta K)
	2. Technology management strategy of Japanese high-tech companies	(Prof	. Motohashi K)
	3. Advanced science in preventing non-communicable diseases (NCDs)	)(1)	(Prof. Lee JS)
	4. Advanced science in preventing non-communicable diseases (2)		(Prof. Lee JS)

### TBA Site Visit to University Hospital (Prof. Nakatomi)

Among 33 attendances, 27 completed in AY2017

- It was a very good opportunity to know about other fields, such as medical nano-device and surgeon assist system.
- Group work might be good to help concentrating and thinking.
- It was amazing to see how many researchers from different background and disciplines can bring in such a variety of new and innovative perspective.









# International Field Workshop (IFW)



- Be actively involved from the planning stage and lead discussion with professionals.
- Test your own expertise face to face with professionals.
- Connect yourself with professional networks to develop your future career.





### **Please come to Information Session**

### 18:45-20:00 on Wed, May 9th

### SMBC Academia Hall, 4th floor International Academic Research Building



Those who want to register for this course should submit a proposal as instructed in the information material and have to pass selection process.



# Engineering Competency III (Summer Camp)



- UTokyo and world-leading universities Ph.D students discuss and exchange ideas propose international research project of
- innovative device for the Japanese society
- 67 Participants from 23 universities of

15 countries & 2 companies

Industry

6%



2017 Venue: UTokyo and Shinrin-koen Heritage Resorts







 2018 Summer Camp: Friday, July 27 to Monday, July 30, 2018 The University of Tokyo & Laforet Shuzenji Hotel, Shizuoka prefecture

 Call will be announced on the GSDM website (http://gsdm.u - tokyo.ac.jp/)



- IEL has been established for a variety of purposes, primarily in order to enhance
  - Socialization
  - Information exchange concerning relevant matters from technical and research questions
  - Practical lessons from practitioners' career experiences
- It is thus a valuable platform for students to develop a sense of belonging and community within the GSDM framework, because students belong to different departments/schools scattered across different UTokyo campuses.
- It is an opportunity open to all members of GSDM, both students and faculty members, to gather in a relaxed, and informal atmosphere.





- Report by students returning from International Projects
- Presentation of Student Initiative Project (SIP)
- Book Club
- Carrier pass by GSDM graduates
- Presentation by external lecturers, etc.

In 2017, a total of twenty-one IELs has been held and 229 students and faculty members attended



IELs, 2017



Date	Title
25 May	Book Club
29 May	Career drawing with GSDM graduates and Talk battle with Prof. Shiroyama
23 June	The path toward a life in Washington, DC as a young professional
29 June	International project, a path way for a global leader_part 1
5 July	Book Club
12 July	Choosing the topic of the next GSDM International Symposium
26 Oct	International project, a path way for a global leader_part 2
30 Oct	Book Club
9 Nov	Career path to the United Nations
15 Nov	Sense of good carrier choices-Global corporations need your interdisciplinary talents
22 Nov	Global Health Governance: Research Priority for Neglected Tropical Diseases





Date	Title
24 Nov	Innovation to achieve Sustainable Development Goals: personal reflections from two decades (UTokyo4SDGs)
27 Nov	Book Club
6 Dec	Economic growth and its impact on environment and society (UTokyo4SDGs)
14 Dec	Book Club
10 Jan	Experience the future – 2030 SDGs Game (UTokyo4SDGs)
25 Jan	Book Club
5 Feb	Cutting edge technology enterprises – Journey from research to entrepreneurship (UTokyo4SDGs)
28 Feb	Space innovation & Disaster management (SIP No.3&4 final report)
1 Mar	From the lab to the market: alternative career pathways for researchers in the 4th industrial revolution
8 Mar	Book Club



### IELs, 2017



#### **Book Club**



### International project, a path way for a global leader

Career drawing with GSDM graduates / Talk battle with Prof. Shiroyama



Innovation to achieve Sustainable Development Goals



### International project, a path way for a global leader



Choosing the topic of the next GSDM International Symposium





### IELs, 2017



Cutting Edge Technology Enterprises – Journey from Research to Entrepreneurship

Space innovation & Disaster management

Experience the Future – 2030 SDGs Game



Economic growth and its impact on environment and society

#### From the lab to the market



### Sense of good carrier choices











- IEL is a very important curriculum of GSDM program
- Attendance of IEL will be considered in QE, RDW and Final Exam

### The information of IEL will be announced at Facebook and Slack



Please contact us if you have any ideas / questions! gsdm-iel@pp.u- t okyo.ac.jp





- 1. Students coordinate a project consisting of several students with <u>interdisciplinary</u> and <u>multinational</u> backgrounds.
- 2. Each project aims to <u>solve some global/social issues</u> and to produce deliverables that practically address the issues in the form of a <u>policy report</u>, a <u>business plan</u>, and so forth.
- **3.** Students are responsible for planning and execution of the project.
- 4. In executing SIP, each student is expected to go beyond his/her own disciplinary expertise.
- 5. Some <u>milestone events</u> are arranged to facilitate the progress and to provide <u>feedback from practitioners</u>.
- 6. Each SIP lasts from a half to one year.



27

★ Students are required to participate in SIP during GSDM years:
 At least once as a leader
 At least once as a member

★ Participation of SIP will be considered when QE/RDW and Final Exam



### **Team Formation**











SIP groups have several opportunities to obtain advice from GSDM faculty members and external practitioners.

Mid-May 2018: Proposal Review Meeting
 Early October 2018: Midterm Review Meeting
 Late February 2019: Year-end Report Meeting
 March 2019: Report Session at the Spring Camp





### 9 projects

No.	Project Title
17-01	Knowledge and Data Management for Policy Making Towards Data Driven Society
17-02	GLEG (Global Leaders X Ethics X Games) – Development of a new learning method for primary stages of ethical decision-making using gamification –
17-03	Space Innovation Policy for Disaster Management Capabilities (SIPDMC) - Extended
17-04	Disaster Management for the Future: Technological packages for Natural Disasters
17-05	Disease control for neglected infectious diseases
17-07	#UTokyo4SDGs
17-08	Paradigm shift of cancer-cell therapy
17-11	Food waste in Japan
17-12	Self-Powered Sensor Device for the Elderly





# Please contact us if you have any questions gsdm-sip@pp.u-tokyo.ac.jp

Dr Jung Su Lee, project associate professor, Graduate School of Medicine Dr Kevin Montagne, project lecturer, Graduate School of Engineering



# Bridge between the acquired knowledge/expertise and the real world. You will gain practical experiences in solving issues.

- One of the requirements to complete the program
- International joint research or international internship
- Could be done in Japan (from October 2018 for the Japanese students)
- GSDM students who have passed QE are eligible. Those who start the program at D1 don't need to take QE before starting the international project.
- 1.5 to 6 months with the financial support of up to 750,000yen (from October 2018)
   \*Until October, duration should be 2 to 6 months with the financial support of up to 1,000,000yen.
- Submit the application materials <u>at least two months prior</u> to the start of the project.



It **takes time** to prepare for the International Project. Get started at least 6months in advance.



\*Check the GSDM WEB site or contact GSDM office for details.



- 54 students, including the ones who completed GSDM, have finished the International Project so far.
- Joint research is more popular.
- A wide-ranging destinations have been chosen while the USA is the most popular.
  Purposes



### Status of international project

(As of April 17, 2018)

Completed	54
Ongoing	5
Preparing for departure	3
Total	62

Destinations	Number
USA	24
Japan	9
Germany	7
Switzerland	6
France	5
England	2
Italy	2
Netherland	1
Australia	1
Canada	1
Taiwan	1
Philippines	1
Malaysia	1
Luxembourg	1
Total	62





### Who has to take it?

All master candidate students

### When?

One year after the enrollment to GSDM (students who enrolled in M1) At the end of M2 (students who enrolled in M2)

### Purpose

To verify the intension of going to the doctoral thesis and the preparation to become the kind of human resource expected by GSDM





- Report
  - 1. Research Plan

2. How to identify the links between your research and social issues, possibly leading to a practical solution with a view to your future Supplementary Paper

- 3. Review of the participation in GSDM program
- Comprehensive Coursework
  - 2 credits from each course (total 6 credits).
  - 'Social Design and Global Leadership' can be substituted for 2 credits of Issue Solving Courses
- Group work
- Individual presentation (2 minutes)




## Who has to take it?

All doctor candidate students

# When?

One year after the enrollment to GSDM (students who enrolled in D1) At the end of D1 (students who enrolled in M1& M2)

## Purpose

To verify the prospects of completing the doctoral thesis and the preparation to become the kind of human resource expected by GSDM





# Report

- 1. Extended abstract of doctoral dissertation research
- How to identify the links between your research and social issues, possibly leading to a practical solution, with a view to your future Supplementary Paper.
- 3. Review of the participation in GSDM program

# Presentation (7 min + 13 min of Q&A)

Your doctoral research project and its progress

How your research can contribute to the solution of social problems

\* This does not exclusively refer to the exposition and description of a concept, but the project/presentation must contain concrete ideas for its implementation in the real world, including financial and legal aspects, social and political consequences. What kind of ability you have acquired through the GSDM program

# What to do to prepare for QE and RDW?



 You must take various Comprehensive Coursework courses.

However, just taking courses to satisfy the completion requirements will not be enough.

- You should actively participate in GSDM Platform Seminars, GSDM Interactive Evening Lounge (IEL), Students Initiative Projects (SIP) and other events.
- You should strive to have continuous discussions on your own initiative with various parties such as students, teachers, people from industry and governments.
- You need to consider the relation between your research and outstanding social issues.
- Attend the dedicated pre-QE and pre-RDW meetings.



### **GSDM** Global Leader Program for Social Design and Management

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#### Curriculum



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Comprehensive Coursework	
Qualifying Examination (QE)	
Research Design Workshop	
International Project	
Secondary Advisor Program	>

#### Secondary Advisor Program

The secondary advisor program was introduced with the aim of developing doctorate holders with a wide range of specializations. This program provides GSDM program students with opportunities to receive advice from secondary advisors in addition to their main supervisor.

#### Eligibility

• All GSDM program students enrolled in the doctoral program are eligible to receive advice from secondary advisors in addition to their main supervisor.

#### Credits

• No credits are awarded for participation in the program. Students are required to submit reports on their meetings with their secondary advisors.

#### Content

Students receive advice concerning the preparation of Supplementary Paper. This
paper should propose solutions to a social problem (assessing practical applications
for technology, developing public policy, or dealing with ethical issues) by building on
the content of the Vision section of the Research Design Workshop document. The
content to be discussed at meetings with secondary advisors will be determined by
agreement between program students and their secondary advisors. Examples of the
advisory relationship include the following:





Examples of the advisory relationship include the following:

1. Students visit their secondary advisors at regular intervals and receive advice on their supplementary paper.

- 2. Students participate in workshops organized by their secondary advisor, making presentations and engaging in class discussions.
- 3. Students receive career advice from their secondary advisors based on the advisor's experience, etc.





- The Supplementary Paper shall contain a discussion of the social implications of the problems;
  - that related to the main doctoral topic.
  - with <u>interdisciplinary analysis</u> for implementing solutions or with the <u>framework</u> for combining technological research and public policy research
  - by building on the content of the Vision section of the Research Design Workshop (RDW) document.
  - The minimum length of the Supplementary Paper is <u>ten pages</u> (4,000 words), and it must be <u>written in English</u>.







- < Selection >
- Possible main topic and sub-topics
- The profile of SAs you need, first (do not write names only)
- Look the teacher list of GSDM and select direct & indirect candidates
   → GSDM will propose two SAs to you
- < Relations >
- Before the meeting with SAs, prepare several alternatives for sub-topics
- Discuss at least One/Two times per year
- Keep the discussion records and submit contact memos to GSDM HQ
- < Topic change >
- In case the change of a main/sub topic, you need to inform GSDM
- You can change your SAs at any times







### Support Course Work GSDM and various GSDM activities









Based on their broad network on companies, governments, international organizations, advise on your carrier design.





# **Spring Retreat March 2019**

From 17 March to 18 March, 2019 At IPC Center in Shonan Kokusai Village



# All GSDM students must join the Retreat!

- Spring Retreat provides opportunities to learn from each other and to deepen mutual understanding..
- The program will include dialogue with invited professionals, student-led activities, Leadership Award celebration and GSDM Commencement ceremonies, etc.
- Student proposals on the Spring Retreat program are welcomed!









- Inform GSDM office when you leave Japan for studying abroad, internship or any other reason.
- Carefully check emails from GSDM office and strictly observe the deadline of submission or reply.
- Read the Agreement in the enrollment document package carefully, especially where it mentions the application for DC1/DC2.
- Student Leadership Award: students compete for an annual prize awarded on the basis of their performance as leaders.
- GSDM office will share your email address with GSDM student committee.

# Slack

- Only for GSDM members
- Methods of communication
  - Channels for sharing opinions
  - Private channels for group works
  - Direct messages for sharing researches



Useful information pinned in #general

# Start "Slack"

- Send e-mail <u>NOW</u> to <u>gsdm.student.committee@gmail.com</u> with your name You will get an invitation and access to registration
- Download "Slack" app for mobiles (iOS, Android, ...) and PCs (Windows, macOS, Linux, or web)









創出人は、Stack technolci@stack.com 年后: Tho Maekawa has invited you to join GSDM on Stack 日付: 2016年4月12日 13:35 発売: smaekaws@hpc.jp	0
🗱 slack	
You're invited to join the GSDM Slack team	
Slack is a messaging app for teams. It makes teamwork simpler, more pleasant, and more productive!	
Sho Maekawa (smaekawa1@gmail.com) sent you this invitation.	
Join team	
You may copy/paste this link into your browser: https://gadm- student.slack.com/invite/Mz0400T0xNTItMTQ2MDQzNTc0Ni0w/MWY0Nmi4ZTA5	
Your team's Slack domain is:	
gsdm-student.slack.com	
Your sign-in email is: smaekawa@hgc.jp	
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