



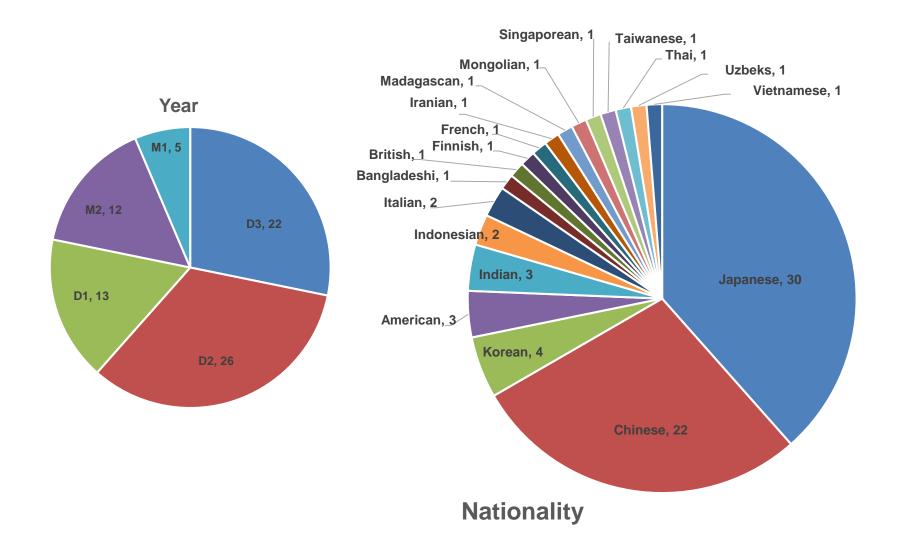
## Global Leader Program for Social Design and Management

## **Program Guidance**

April 16, 2019



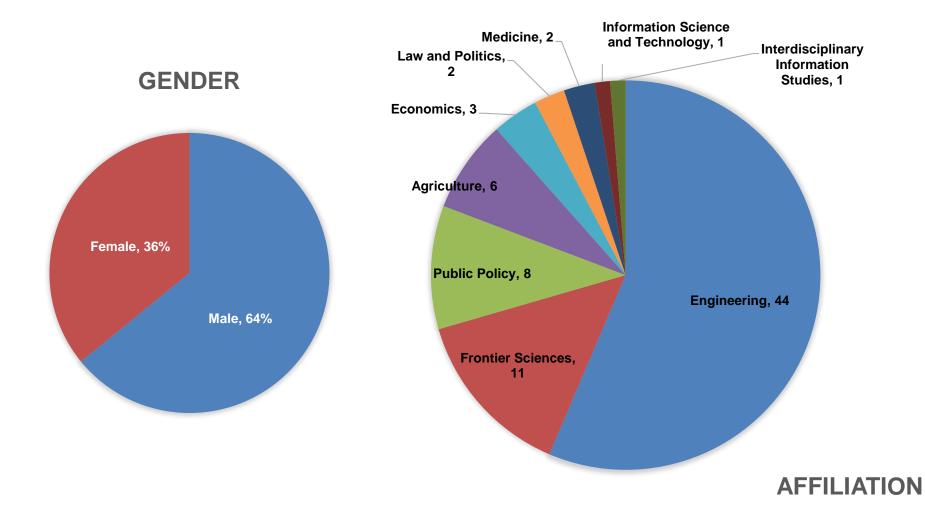


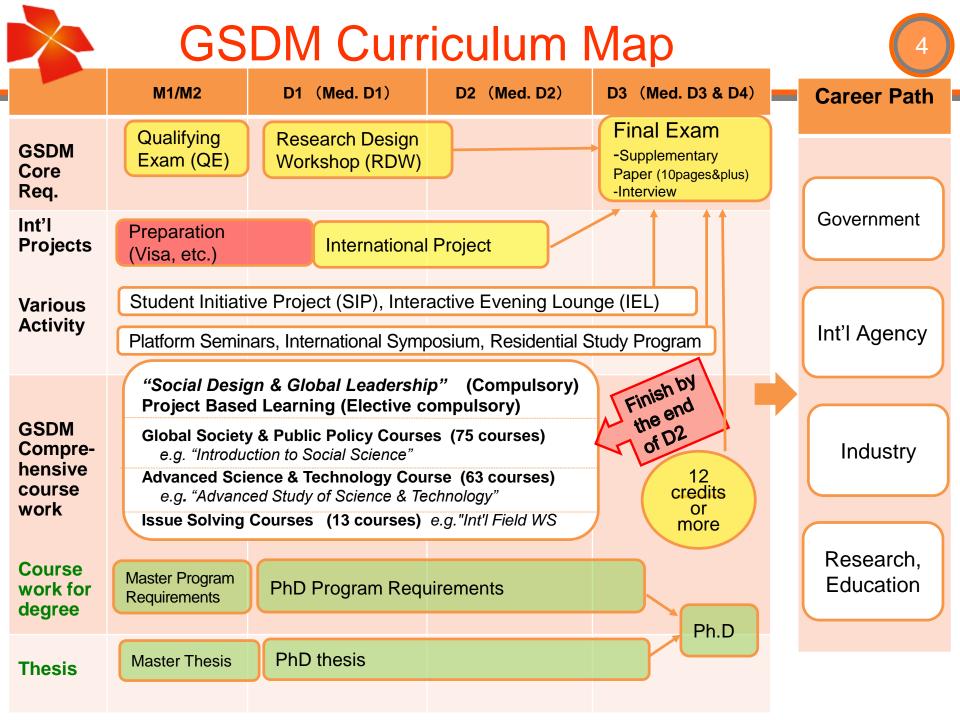




## 78 GSDM Students as of today











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 courses (75 courses)

Advanced science and technology courses (63)

Issue solving courses (13)

# Program Completion Requirements



(1) Pass Required Course : Social Design and Global Leadership (2credits, English)

(2) Pass Compulsory Electives ①: Either "Engineering Competency I -Project Based Learning-" or "Project Based Learning on the Technological Innovation and the Social Solutions" (2 credits)

\*(1) Required Course and (2) Compulsory Electives (1) must be taken within two years after starting the program.

(3) Pass Compulsory Electives ②: Elect the classes from the following three core courses (8 credits)

Out of these 8 credits, at least 4 credits must be taken from English-taught courses.

2 credits or more from Advanced Science Technologies Core Course

2 credits or more from Global Society & Public Policy Core Course

2 credits or more from *Issue Solving* Core Course (excl. two credits in PBL above in (2))

\*Total number of credits required by the GSDM will be 12.

\*All the required credits above (1), (2), (3) must be earned by the end of your D2 Completion timing.

(4) Pass Qualifying Examination (QE) if you are in Master's program.

(5) Pass Research Design Workshop (RDW) when you are in the Doctoral program.

(6) Pass International Project (It has to be completed before the final exam.)

\*The necessary fund for the International Project has to be procured by the students from the 2020 academic year. The possible source of fund may include the budget of applicant's own laboratory, scholarships for study abroad, etc.



Final Exam (10-page Supplementary Paper, Interview, etc.)

\*Please note that these completion requirements are as of April 2019 and there is a possibility to change in the future.





### 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







- Compulsory course focusing on problem definition based on interdisciplinary discussion and discussion with stakeholders
- Expected Outputs: PPT slides+ self assessment
- Additional lectures on leadership on 26th July (13-16:30) by Prof. Aoki

April 20 9:00-17:00	I	Introduction	Prof. Shiroyama
	II	Basic concepts and methods for social design and management and Medical Innovation	Prof. Suzuki
		International space collaboration	Prof. Nakasuka
May 12 9:00-17:00	I	Energy Security	Prof. Tanaka
	II	International economic management	Prof. Kawai
June 1 9:00-13:15	I	International public health	Prof. Nomura
	II	Group formation for final presentation	
July 6 9:00-13:30		Presentation by groups and comments	

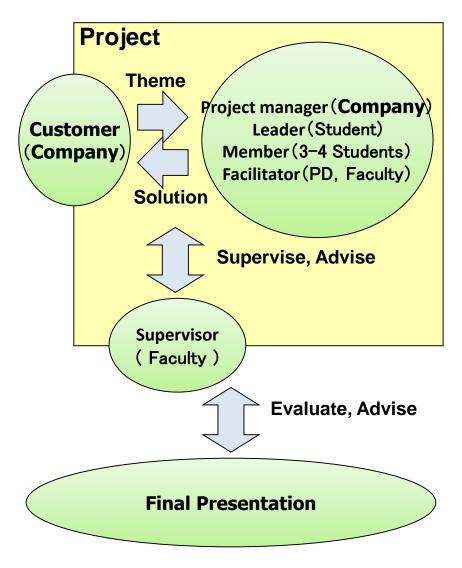
Project Based Learning on the Technological Innovation and the Social Solutions [Elective Compulsory]

- Elective compulsory from AY2016
- Students are encouraged to experience specific project based on the demands from practitioners
- Students should develop the ability to formulate and evaluate options for problem-solving⇔problem definition (SDGL)
- Expected Outputs: 10 pages paper+ PPT slides+ self assessment
- Schedule of AY2019 (A1&A2)

1 <sup>st</sup> day	Lectures by stakeholders including business/ NPO leaders and policy makers in various fields in social innovation. Collaborative work by groups continue afterwards.
2 <sup>nd</sup> day	Lectures by stakeholders including business/ NPO leaders and policy makers in various fields in social innovation. Collaborative work by groups continue afterwards.
3 <sup>rd</sup> day	Interim report by groups
4 <sup>th</sup> day	Final presentation and comments by practitioners.



- Business solution
  - Real-life problems from company
  - not only idea but product and/or verification
  - 4 month group work
- Team
  - Students from different lab, department, and nationality
  - Company member
- Students learn
  - How to communicate with professionals of another field
  - Project management
  - How to correlate (their) top-level R&D with concrete, feasible, realistic solutions







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You have to attend the following sessions and also arrange meetings by yourselves.

- Beginning of October: Guidance, Team member selection
- Mid-October: 1<sup>st</sup> presentation (6 min + Q&A)
- Mid-December: mid-term presentation (6 min + Q&A)
- Beginning of February: final Presentation (12 min + Q&A)



▲ Final Presentation

 Call will be announced on the GSDM website (http://gsdm.u - tokyo.ac.jp/) in September, 2019



#### Introduction to Social Science [Global Society & Public Policy Course]



This course offers an introduction to how social science works, defined from an epistemological and methodological standpoint, by discussing the meaning of "science" with reference to the extremely complex domain of human societies. By making extensive use of intuitive examples, it also illustrates some elementary notions of how social science is then channelled in decision making, especially for public policy purposes.

#### Keywords

- Research Methods; Process, Social Design.
- Lectures (A1A2 Semester; intensive course)
  - 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: Discussing an Academic Paper
  - 9: Causality
  - 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 of social science methodological possibilities and their applications



Course Handbook 27<sup>th</sup> October, 24<sup>th</sup> November, 22<sup>nd</sup> December 2018, and 12<sup>th</sup> January 2019.

Instructor: Roberto ORSI

Ideal for those who know little or nothing about social science but want to know more!

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

#### <Lectures of AY2019>

- Day 1 1. Comparative health system
  - 2. Robot assisted Surgical Systems (1)
  - 3. Robot assisted Surgical Systems (2)
  - 4. Three-dimensional fusion image for simulation of Neurosurgery
- 1. System safety: resilience Day 2
  - 2. Technology transfer and boundary of organization
  - 3. Technology maps for industry analysis
  - 4. Carbon nanotubes and nanotechnology
- Day 3 1. Technology management strategy of Japanese high-tech companies
  - 2. Paris agreement and green growth
  - 3. Advanced science in preventing non-communicable diseases (NCDs)
  - 4. Final examination

#### Optional Site Visit to the UTokyo hospital

In AY 2018, 26 students completed this course.

#### Students' evaluation:

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



#### Site Visit to the Utokyo Hospital, 2018





# Case Study (International Field Workshop)

## International Field Workshop (IFW)

#### Mid-August 2019 in Asia | February or March 2019 in the US

- Help students to identify today's societal challenges from global perspectives and to learn how to design solutions
- Active involvement required from the planning stage to lead discussion with professionals on issues of your interest
- Networking with professionals to develop your future career



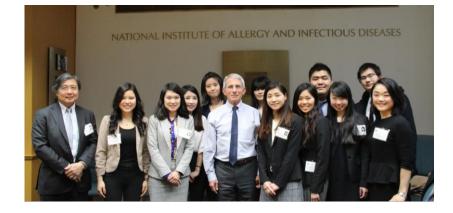




#### Please come to Information Session in mid-May Date & venue: TBA







Those who want to register for this course should submit a proposal and have to pass selection process.



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fast

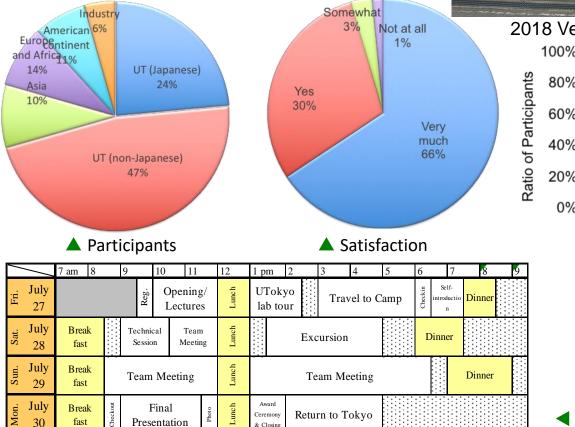
Presentation

# Engineering Competency III (Summer Camp)



UTokyo and world-leading universities Ph.D students discuss and exchange ideas

68 Participants from 18 universities of 13 countries & 3 companies



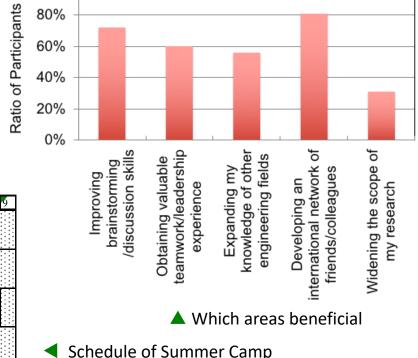
Ceremony

& Closing

Return to Tokyo



2018 Venue: UTokyo and LAFORET Shuzenji 100% 80%





#### Engineering Competency III (Summer Camp)



## Team meetings and presentation

Task is to **propose an innovative device for the Japanese society** related to <Energy, Environment, Healthcare, Information Technology, Infrastructure> and propose an international research project to demonstrate the proof of concept or to accelerate the innovation process.









 2019 Summer Camp: Friday, August 2<sup>nd</sup> to Monday, August 5<sup>th</sup>, 2019 The University of Tokyo & Shonan Village Center, Kanagawa prefecture

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



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- IEL has been established to enhance
- <u>Socialization</u>
- <u>Information exchange</u> concerning relevant matters from technical and research questions
- Practical lessons from practitioners' career experiences
- Platform for students to develop a sense of <u>belonging to a</u> <u>community</u> within the GSDM framework, because students belong to different departments/schools
- It is an opportunity open to all members of GSDM, both students and faculty members, to <u>gather in a relaxed, and</u> <u>informal atmosphere.</u>





- 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 AY2018, a total of 14 IELs has been held



Date	Title
25 April	Book Club Session 14
31 May	Book Club Session 15
8 June	International Project Reporting IEL
26 June	A Joint GSDM-GMSI seminar with Repsol:Oil & Gas companies in the era of the energy transition: R&D activities and career prospects
22 Oct.	Book Club Session 16
2 Nov.	International Project, a pathway for global leader
26 Nov.	Book Club Session 17
29 Nov.	Student Discussion Session for Sustainable Development Goals





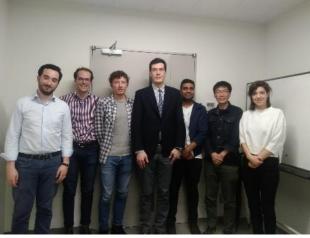
Date	Title
17 Dec.	Book Club Session 18
20 Dec.	Climate Change- Innovation, Policy and the Youth
10 Jan.	Gender and Economy- Role of Gender equality in improving economics
4 Feb.	Book Club Session 19
11 March	Book Club Session 20
25, 27 Feb.	6th GSDM International Symposium Students' Workshop: Towards a Sustainable Energy Mix in Northeast Asia



#### IELs, 2018



**Book Club** 



# International project, a path way for a global leader

International project reporting



**Repsol seminar** 



Discussion about climate change

GSDM International Symposium











- ✤ 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-tokyo.ac.jp





- 1. Students coordinate a project aimed at <u>solving some</u> <u>global/social issue</u>
- 2. Each SIP lasts from six months to one year
- 3. The project should produce deliverables that practically address the issues in the form of a policy report, a business plan, a prototype, etc (but not a paper in a scientific journal!)
- 4. Students are responsible for the planning and the execution of the project
- 5. In executing an SIP, each student is expected to go beyond his/her own disciplinary expertise



## **Team Formation**









Students are strongly recommended to participate in SIP during GSDM years.

At least <u>once as a leader</u> At least <u>once as a member</u>

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





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

March : Preparation process starts

- Mid April : Submission of proposal
- Mid-May: Proposal Review Meeting
- Mid Oct. : Midterm Review Meeting
- Late Feb. 2020: Year-end Report Meeting
- Mar. 2020: Report at the Spring Camp
- End Mar. 2020: Submission of final report





- Fifth season of SIP will start in April
- April 10 : Tentative Proposal deadline
- April 16 : Member Recruitment Meeting
- End of April: submission of Revised Proposal
  - Mid-May : Proposal Review Meeting
- End of May: Final Proposal
- End of Mid : Examination at the Steering Committee

launch project





Seven projects are in progress



1. AgriDronevation: Phase II



2. High Seas and Big Data: Using Information to Sustain the Blue Economy



3. Geopolitical analyzation of energy connectivity between South Asia and Southeast Asia in the case of Myanmar



4. GLEG (global Leader X Ethics X Games) Online - - - Convenient online learning tool for primary stages of ethical education



5. Identifying the root cause of gender disparity in UTokyo



6. Mitigation of Plastic Pollution in Japan using Twitter



7. Space Development in ASEAN: History and Way Forward – Part 2





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

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





# 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
- 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. <u>The necessary fund</u> for the International Project has to be procured by the students from the 2020 <u>academic year.</u>
- 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.

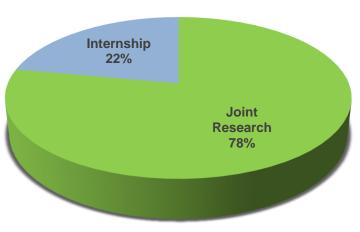


\*Check the GSDM WEB site or contact GSDM office for details.

# Facts about the International Project



- 64 students, including the ones who completed GSDM, have finished the International Project so far.
- More students have chosen to do joint research rather than internship.
- A wide-ranging destinations have been chosen while the USA is the most popular.



#### Purposes

#### **Status of International Project**

(As of April 9, 2019)	
Completed	64
Ongoing	4
Total	68

Destinations	Number
USA	28
Switzerland	7
Germany	7
Japan	7
France	5
UK	2
Italy	2
Uganda	1
Australia	1
Netherland	1
Canada	1
Sweden	1
Taiwan	1
Philippines	1
Malaysia	1
Luxembourg	1
Indonesia, Cambodia, Myanmar (3 project sites)	1
	68





#### 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





- Essay on your research plans and solving social issues.
- Essay on your participation in the GSDM program so far and the capabilities you have developed through the program.
- Status of the Comprehensive Coursework credits acquisition
  - Two credits from each of the three course categories (for a total of 6 credits) must be acquired before QE.
  - 'Social Design and Global Leadership' can be substituted for the 2 credits of Issue Solving Courses
- Group work
- Individual presentation





# 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?

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 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

Home > Curriculum > Secondary Advisor Program

#### Curriculum



Message	+
News	+
About GSDM	+
Curriculum	+
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.

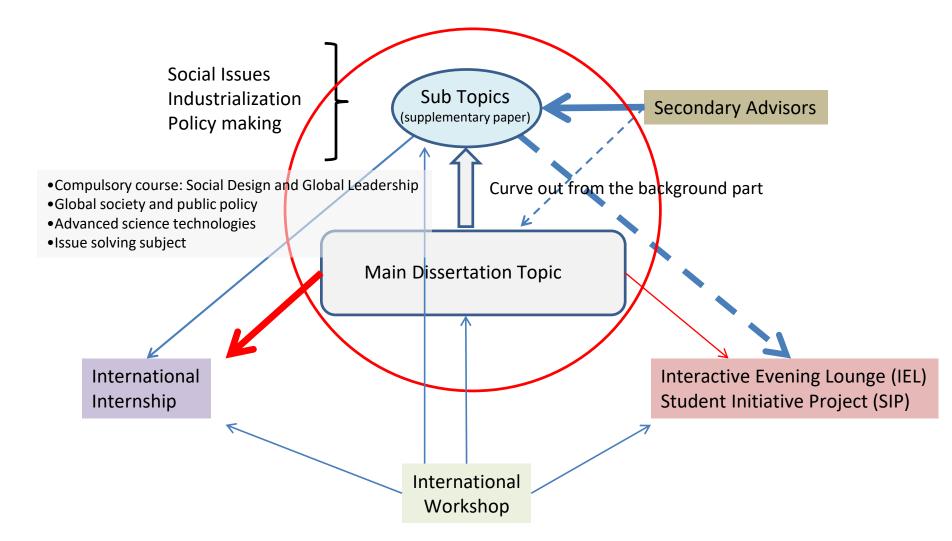
- 2. Students participate in workshops organized by their secondary advisor, making presentations and engaging in class discussions.
- 3. Students receive career advice from their secondary advisors based on the advisor's experience, etc.





- 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 ten pages (4,000 words), and it must be written in English.







## < 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 2020**

From 21 March to 22 March, 2020 At LecTore Hayama 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.

# **About the GSDM Student Committee**

- The Committee is an informal student-led organization that connects students with professors and organizes exciting extracurricular activities (social gatherings, networking events, workshops, etc.)
- The Committee currently counts ten students

Meng Su,Kensaku MatsunamiHong Xie,Bekzod ZakirofHaruhisa Yamamoto,Shu-Qun JinKaittisak Kumse,Leilei BaoXiaoXiao Liu,Max Berthet

Anyone is welcome to join!



Email: stu.com.gsdm@gmail.com

# What we do:

- Meet with GSDM professors once every month to send students' voice to faculty.
- Organize extracurricular activities.
- Listen to students' voices.
- Answer students' questions.
- Help new students to make the most of GSDM!

## Upcoming events:

April – Social gathering + JSPS session May – Visit to National Diet June & July – Prof. talk & alumni talk August – Social gathering (fireworks)





Email: stu.com.gsdm@gmail.com

# -**Slack** where we share information and exchange ideas

