University-wide Graduate Education Program

Science, Technology and Innovation Governance (STIG) Education Program

STIG
SCIENCE, TECHNOLOGY, AND INNOVATION GOVERNANCE

東京大学
THE UNIVERSITY OF TOKYO

Director Graduate School of Public Policy
Prof. Hideaki Shiroyama

Autumn Orientation Session

+ 1st class of STIG Required Course

"Case Study (Science, Technology, and Innovation Policy)"

Wednesday, 6 October 2021

5th Period 16:50～18:35

SMBC Academia Hall, International Academic Research Bldg. 4F & Online Zoom

An overview of STIG

Educational and research project on technology governance

University-wide graduate education program
•12-credit certification program

GraSPP
THE UNIVERSITY OF TOKYO
東京大学公共政策大学院
Graduate School of Public Policy

Graduate School for Law and Politics

Economics Graduate School of Economics
Faculty of Economics
The University of Tokyo

東京大学大学院 医学系研究科・医学部
Graduate School of Medicine and Faculty of Medicine, The University of Tokyo

SCHOOL OF ENGINEERING
THE UNIVERSITY OF TOKYO

東京大学大学院 情報学環・学際情報学府
The University of Tokyo III / GSII

東京大学大学院
工学系研究科

東京大学 大学院総合文化研究科・教養学部
The University of Tokyo, Komaba
Graduate School of Arts and Sciences, College of Arts and Sciences

SciREX
サイレックス事業
技術イノベーション政策における
策のための科学」

Government offices &
Research institutities

東京大学未来ビジョン研究センター
Institute for Future Initiatives

RCAST 東京大学 先端科学技術研究センター
Research Center for Advanced Science and Technology

Collaborate with other universities

KYOTO UNIVERSITY FOUNDED 1897 KYOTO JAPAN
大阪大学 OSAKA UNIVERSITY
九州大学 KYUSHU UNIVERSITY
HITOTSUBASHI UNIVERSITY
GRIPS 政策研究大学院大学 NATIONAL GRADUATE INSTITUTE FOR POLICY STUDIES

Inter-disciplinary research network

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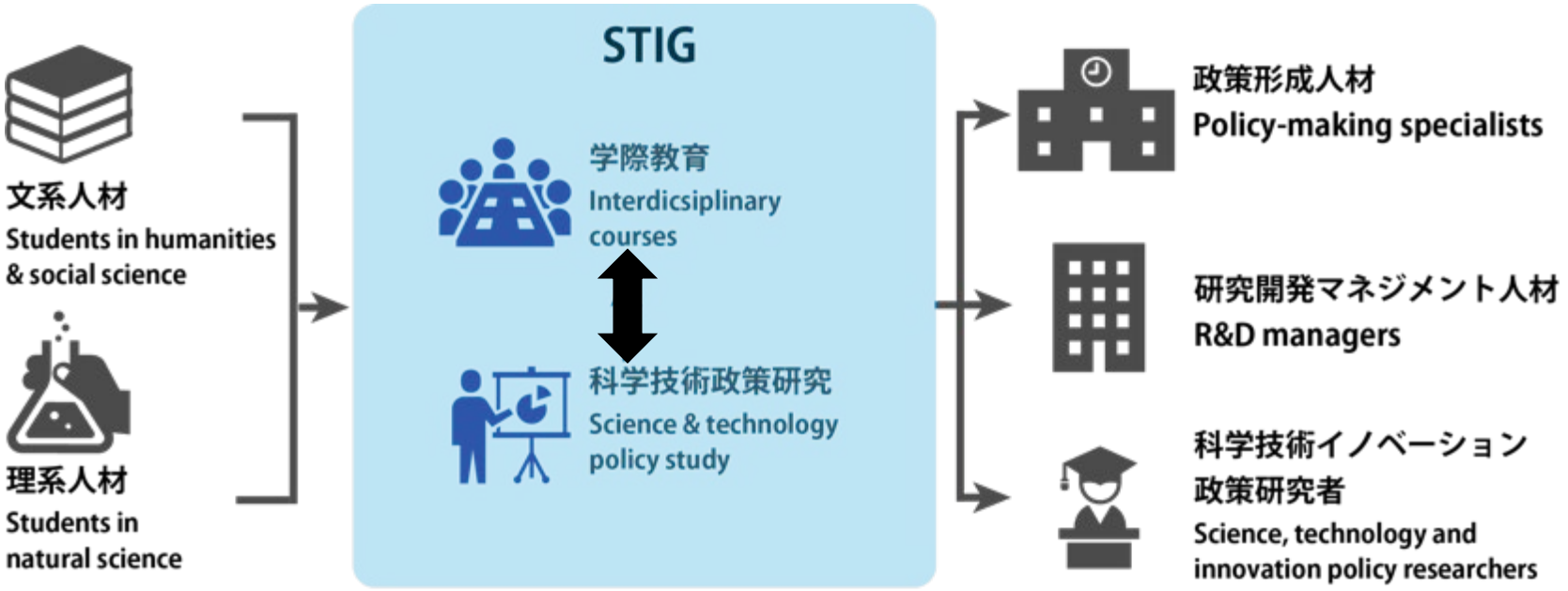
Our goal



科学技術ガバナンスの担い手を育成
STIG helps students develop their science & technology governance abilities

産官学に修了生を輩出
STIG alumni play key roles in science & technology development in industry, government, and university

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STIG Graduate Education Program

Study science and technology policy

- Various courses are prepared to study STI policy design and research
- Provide opportunities for taking courses of different departments within The University of Tokyo

Interdisciplinary collaboration

- Core Curriculum: Interdisciplinary group exercise in policy study
- Summer camp: 3 days intensive group working, collaborating with other universities and government offices*
- Seminars, inviting guest lectures from government officers or academia (Policy Platform (PoP) Seminar)

•Explore the opportunities!!!

*One-day Online Summer School in 2020
Three-days Online Summer Camp in 2021

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Structure of the Education Program

Required course

Group exercise in STI policy study

Learning methodologies to integrate diversified disciplines and knowledge

Required electives

(a): Policy Processes and Institutions

(b): Evidence Development Methodologies

Electives

Applied courses

Business courses and intensive S&T policy study

Field-specific research courses

Focusing on specific issues; energy environment, healthcare, IT, resilience

Credit requirements

Required course: Case study	2 credits
Required electives: Basic courses (a)	2 credits or more
Required electives: Basic courses (b)	2 credits or more
Electives: Basic (a), (b), Applied courses, Field-specific research courses	6 credits or more
Total	**At least 12** credits

Note: The credits to be counted are specified in syllabus. We have 25 English courses (as of April 2021). Group exercise in STI policy study (Required course) is conducted in Japanese with simultaneous English interpretation.

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Course Listings (*refer to the syllabus)

Required course

・事例研究・科学技術イノベーション政策研究
Case Study (Science, Technology and Innovation Policy)

Required electives

Basic Course (a): Policy Processes and Institutions

・政策過程論
・交渉と合意
・科学技術・産業政策論
・Science, Technology and Public Policy
・Policy Process and Negotiation
・事例研究・企業の技術戦略と国際公共政策
・Case Study (Social Design and Management)
・Science and Technology in International Relations

Basic Course (b): Evidence Development Methodologies

・Quantitative Methods for Management and Policy Analysis
・Economic Analysis of Innovation
・政策分析
・公共政策の経済評価
・Data Science for Practical Economic Research
・Economic Analysis of Public Sector
・Political Economics
・事例研究・テクノロジーアセスメント

Electives: Applied courses

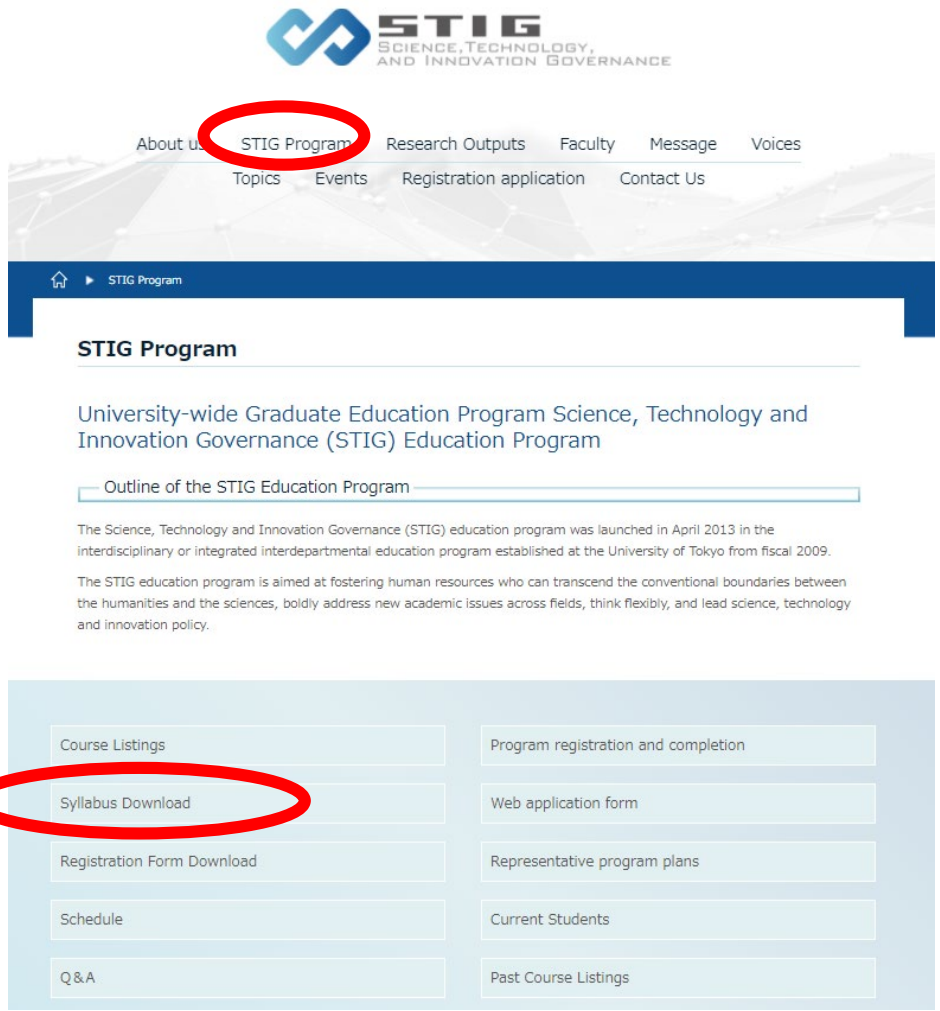
・規制政策
・知的財産経営
・科学技術コミュニケーション論
・Global Business Strategy and Policy
・事例研究・政策環境・事業環境検討手法としてのシナリオプランニング：理論と実践
・Case Study(Business environment, stakeholders and issues; a learning experience in collaboration with Japanese industry)
・International Intellectual Property Management
・Advanced Study of Science & Technology
・事例研究・科学技術と政治・行政 I
・Case Study (GraSPP Policy Challenge: Global Innovative Public Policy Solutions)
・Innovation and Entrepreneurship
・Advanced Technology Management
・知識社会マネジメント
・市民社会組織・政策論

Electives: Field-specific research courses

・先端エネルギー技術経営と政策
・Space Development and Public Policy
・地域交通政策研究
・国際交通政策
・航空技術・政策・産業特論
・海洋科学技術政策論
・観光政策概論
・観光地域政策
・事例研究・デジタル時代の行政と社会
・Special Lecture in Global Health Policy I, II
・Overview of Energy System
・Advanced Lecture on Resilience Engineering
・Case Study(Institutions and Methods of Health Technology Assessment in Healthcare Policy)
・医療イノベーション政策
・Case Study(Project Based Learning on the Technological Innovation and the Social Solutions)
・事例研究・人工知能と社会
・Social Design and Global Leadership
・電力ネットワーク政策

Download the Syllabus

https://stig.pp.u-tokyo.ac.jp/en/program.html



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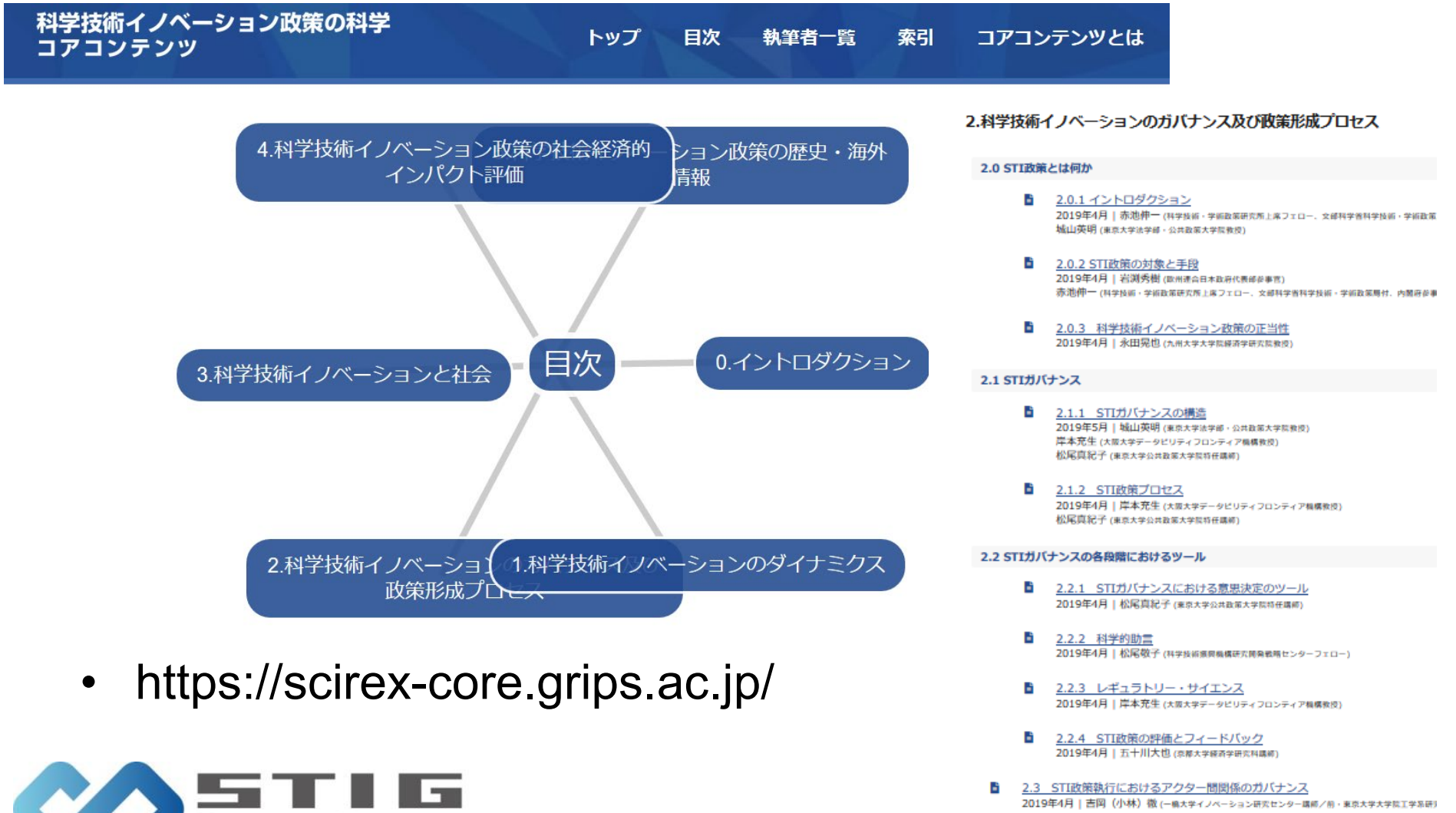
STI Core Contents
(available only in Japanese)



- https://scirex-core.grips.ac.jp/

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SciREX Summer Camp

- SciREX periodically organizes collaborative programs
- Group discussions and collaborations with faculties and students from GRIPS, Hitotsubashi, Kyoto, Kyushu and Osaka, and with government officers from MEXT

(STIG send UTokyo delegates after the selection)

- **STI and industrialization (2015; Inuyama, Aichi)**
- **STI and Reconstruction from Tohoku Earthquake (2016; Matsushima)**
- **Making Scenario for 2030: Interdisciplinary Collaboration for Future Science, Technology and Innovation Policies (2017; Roppongi)**
- **STI and Society towards 2030 (2018; Roppongi)**
- **STI Policy to Challenge (2019; Roppongi)**
- **One-day Summer School (2020; Webinar lecture style)**
- **Innovation System in the Post-pandemic Era (2021; Online by Zoom)**

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SciREX Summer Camp

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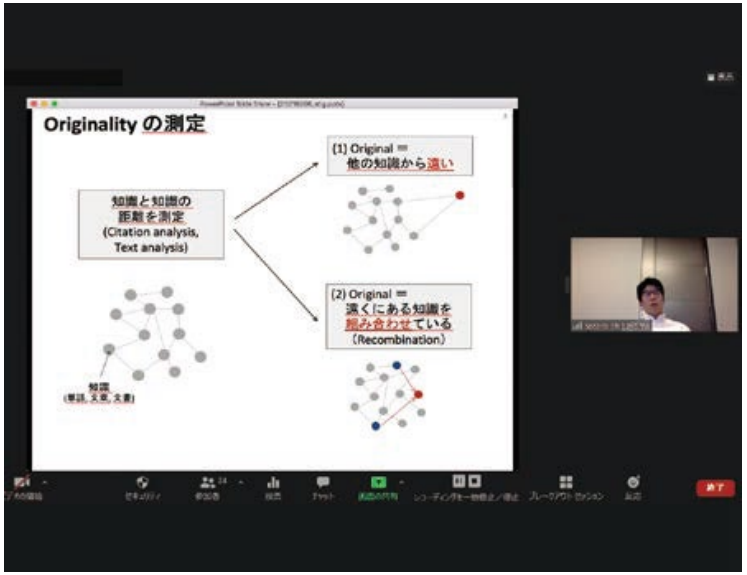
PoP (Policy Platform) seminar

63rd STIG PoP seminar/WS
16 March 2018

Shih-Ming Kao, Assistant Professor, National Sun Yat-sen University, Institute of Marine Affairs: "Co-existence of offshore wind energy and local fisheries in Japan and Taiwan"

101th STIG PoP seminar
10 February 2021/Online lecture by Zoom

Sotaro Shibayama, Senior Lecturer, Sten K. Johnson Centre for Entrepreneurship, Lund University: "Exploring platforms for scientific Innovation: Proposal for visualized methodology of original knowledge generation processes"



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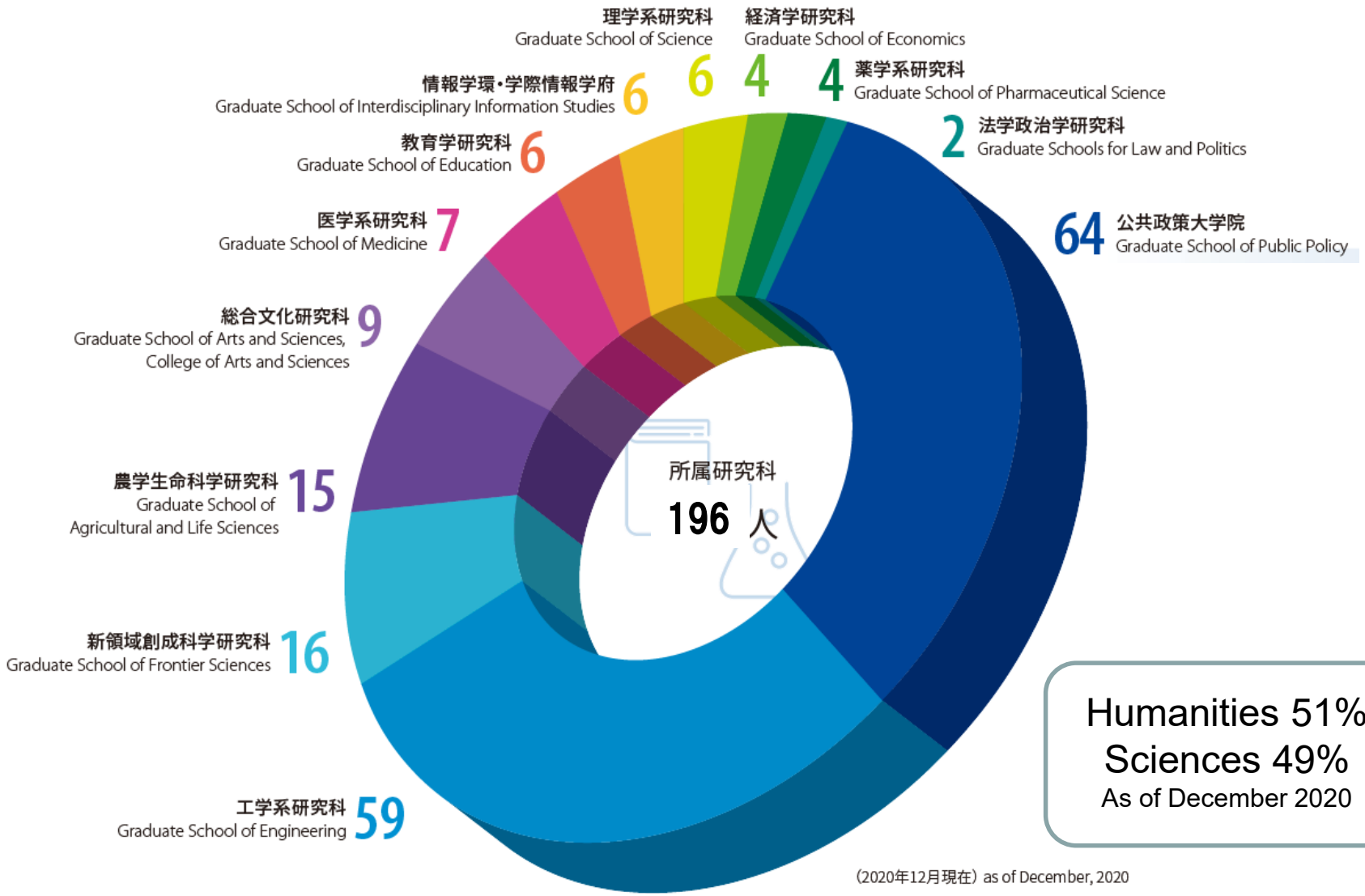
Departments of STIG enrolled students



Humanities 51%
Sciences 49%
As of December 2020

(2020年12月現在) as of December, 2020

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Graduates from STIG Education Program

107 graduates received certification from AY 2013 to 2020

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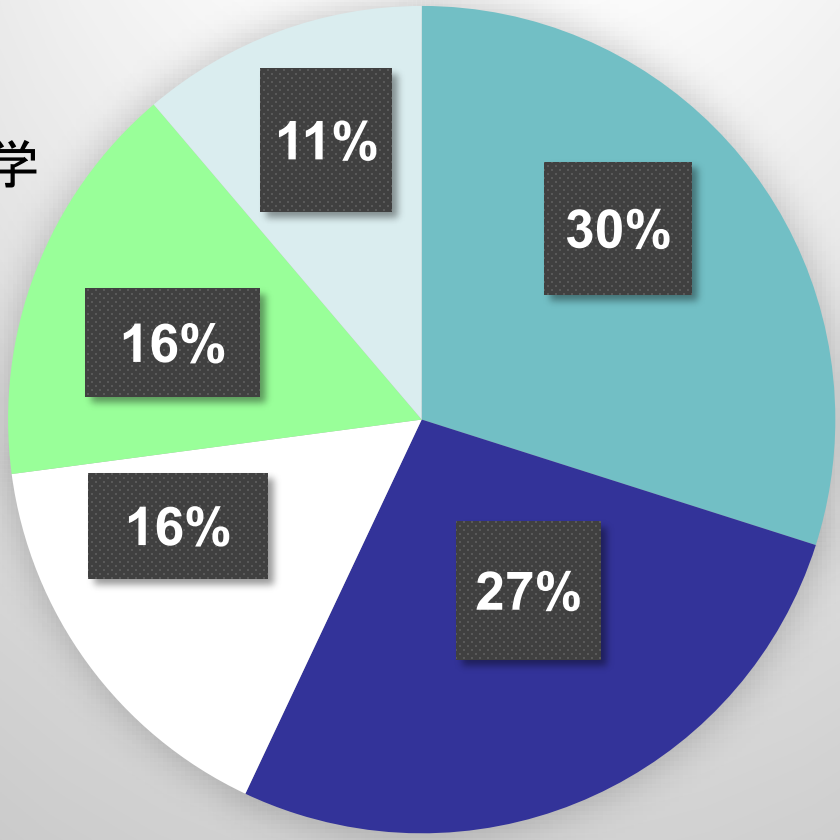
Career Paths of STIG Graduates

Government 32
Industry 29
Consulting 17
Academia 17
Others 12

TOTAL 107



官公庁/Government

- Ministry of Economy, Trade & Industry
- Ministry of Finance
- Ministry of Land, Infrastructure, Transport and Tourism
- Ministry of Internal Affairs and Communications
- Ministry of Education, Culture, Sports, Science and Technology
- Ministry of Foreign Affairs
- National Diet Library
- The Legislative Bureau of the House of Representatives
- Prefectural office

大学研究職・進学/Academia

- University faculty
- Ph.D. student

シンクタンク・コンサルティング Think-tank & Consulting

- Private think-tank
- Consultation firm

産業界/Industry

- Manufacturing firm
- General trading company (Shosha)
- Electric power company
- Technology, IT, e-commerce
- Bank / Securities company
- Audit corporation

2019年12月現在/As of December 2019

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Networking with STIG Alumni

Exchanging views with alumni, faculties, staffs and current students

◆Date: 6th July (Sat) 17:00-19:00
◆Venue: IAR Seminar Room E, The University of Tokyo

5 Alumni shared their experiences by presentation. 25 participants.

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Your benefits of joining STIG education program

Various agencies are in charge of STI policies in Japan

内閣府 Cabinet Office

文部科学省 MEXT

経済産業省 Ministry of Economy, Trade and Industry

総務省 MIC Ministry of Internal Affairs and Communications

厚生労働省 Ministry of Health, Labour and Welfare

環境省 Ministry of the Environment

防衛省 MINISTRY OF DEFENSE

国立研究開発法人 科学技術振興機構 JST Japan Science and Technology Agency

NEDO 国立研究開発法人 新エネルギー・産業技術総合開発機構

Japan Society for the Promotion of Science 日本学術振興会

STIG Science, Technology, and Innovation Governance

Your benefits of joining STIG education program

For those who seek a government job

- Learn fundamentals of policy design
  - Especially, methodologies of evidence-based policy design
- For students with natural science backgrounds: Provide opportunities to cultivate a social science mindset through group work exercises and teaching by our educational staff, who have social science-based expertise
- For students with social science backgrounds: Provide opportunities to network and connect with STI policy practitioners & researchers

Your benefits of joining STIG education program

For those who seek an opportunity in the industry

- learn the importance of social acceptance, the relationship between science technology and society, when introducing technology into society
- Learn a design process of evidence-based R&D strategy
- Develop a policy proposal skill
  - Industry associations and individual firms actively lobby to the public sector through their government relations sections
  - An innovative business needs adequate lobbing

FAQ (1)

Q. Are there any requirements for registration? Also, are there examinations, interviews or other selection procedures?

A. No. The course can be taken by any University of Tokyo graduate student. There is no particular requirement nor fee. Also, there is no examination or interview when registering.

Q. I am interested in the STIG education program, but is it possible to take only certain courses?

A. Students are welcome to take individual courses, without planning to complete the program.

FAQ (2)

Q. If I register for the STIG education program from now, can the credits I earned during the previous year (my first year of graduate school) be used to satisfy the STIG completion requirements?

A. **Partly yes. Please consult with the STIG education program administrative staff** regarding the credits you want to count from the previous year.

Q. How can I register to the STIG program?

A. **You can register today**. Or submit the STIG Registration Form to the STIG Education Program Office. Please access the official site: https://stig.pp.u-tokyo.ac.jp/en/

FAQ (3)

Q. If I register for the STIG education program and meet the credit requirements, would I automatically get the certificate?

A. **No. You need to apply for certification on UTAS. An email reminder will be sent to you, but please do not forget to submit your application.**

Registration Form

https://stig.pp.u-tokyo.ac.jp/en/

Contact STIG administrative staff for any question concerning STIG program
STIG@pp.u-tokyo.ac.jp

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