(Updated on April 1, 2025)

# GSIS Course Timetable

## Academic Year 2025

(2-year Master Program)

In case there is a change in the timetable, the latest version will be updated
on the web page of the Graduate School of Information Science (https://www.is.tohoku.ac.jp/).
Be sure to check it frequently.

Graduate School of Information Sciences
Tohoku University

# GSIS Master Course Timetable (Spring Semester 2025)

Department Color Code: Computer and Mathematical Sciences / System Information Sciences / Human-Social Information Sciences / Applied Information Sciences

| | 1st 8:50~10:20 | 2nd 10:30~12:00 | 3rd 13:00~14:30 | 4th 14:40~16:10 | 5th 16:20~17:50 | 6th 18:00~19:30 |
|---|---|---|---|---|---|---|
| Mon | Humanities and Social Studies in Information Sciences* Okada,R.Itoh, Ogawa,Kawamura, Sakata,Tokugawa, Nagahama, Fujiwara,Horita, Muramoto,Mori, Morita,Wada 【GSIS-206】 | Intelligent Integrated Systems Hanyu,Hariyama, Waidyasooriya 【GSIS-206】 | Highly-Reliable System Design Hariyama, Waidyasooriya 【GSIS-206】<br>Methods of Sociological Interviewing／Methods of Sociological Fieldwork(1) Tokugawa, Okada 【GSIS-512】 | Computer Structures Aoki,K.Ito 【GSIS-206】<br>Practical Information Literacy A Tokugawa, Wada 【GSIS-514】 (Every other week)<br>Natural Language Processing Saito 【GSIS-207】 | Health Informatics Suzuki,C.Ito inoue,tatebe 【GSIS-206】<br>Legal System in Information Society* Only for those who enrolled before 2024 Kawamura 【GSIS-206】 | |
| Tue | Computer Hardware Fundamentals 1st Quarter Takizawa,T.Tanaka 【QSE-Lecture Hall(A41)】 | Algebra and discrete mathematics Munemasa 【GSIS-206】<br>Social Anthropology of Northeast Asia Delaney Alyne Elizabeth 【Kawauchi kita-334】 | Applied Mathematical Fluid Dynamics 1st Quarter Hattori,Hirota 【ME-7(A02)】 | | | |
| Wed | System Control Engineering I 2nd Quarter Hashimoto,Hirata 【ME-5(A02)】 | Information Media Education Nagahama 【GSIS-206】<br>Theory of Differential Equations K.Tanaka 【GSIS-207】<br>An Analysis of Syntactic Structures Ogawa 【GSIS-310】<br>Econometric System Analysis Fujiwara 【GSIS-412】 | Media Communication Studies Sakata 【GSIS-822】 (Every other week)<br>Communication Theory Hasegawa 【GSIS-207】<br>English Communication Murchie.S 【GSIS-206】 | Analysis of Micro Socio-Economic System R.Itoh 【GSIS-207】 | | |
| Thu | Intelligent Systems Science Shinohara, Yoshinaka 【GSIS-206】<br>Mathematics for applied economics Kono 【CEA-203(F01)】<br>Applied Fluid Mechanics 2nd Quarter Ishimoto,Iga 【ME-4(A02)】 | Information Ethics* Omori,Uchida, Suganuma,Mori, Wada,Sakai, Sakata,Kanaya, Matsuoka, Naoe,Hara 【GSIS-206】<br>Advanced Mathematical Logic Nemoto 【GSIS-608】<br>Information Storage Devices and Systems Greaves Simon John 【RIEC-M153(G10)】 | Physical Fluctuomatics K.Tanaka 【GSIS-207】<br>Mathematical Modeling and Computation 2nd Quarter Yamamoto 【ME-4(A02)】<br>Mathematical Urban Modeling Akamatsu 【CEA-205(F01)】 | Academic Writing in English* Yamada etc 【GSIS-206】<br>Time Series Analysis Imamura Yamakawa, Otake 【CEA-203(F01)】 | | |
| Fri | Game Theory for Applied Economics Z.Zeng 【GSIS-206】 | Higher Order Vision Science Sakamoto Chia-Huei Tseng 【RIEC-M153(G10)】<br>Mathematics for Information Sciences Taya 【GSIS-206】<br>Urban Landscape Design Hirano 【CEA-203(F01)】 | Institutional Analysis Fukumoto 【CEA-203(F01)】<br>Topics on algebraic differential equations Matsubara | | | |

## Classroom Code Location (Campus map area)

- 【GSIS-○】 Gradute School of Information Sciences (G area) G01
- 【EIPE-○】 Dept. of Electrical, Information and Physics Engineering, School of Engineering (D,G area)
- 【ME-○】 Dept. of Mechanical Engineering, School of Engineering (A area)
- 【QSE-○】 Dept. of Quantum Science and Energy Engineering, School of Engineering (A area)
- 【CEA-○】 Dept. of Civil Engineering and Architecture, School of Engineering (F area)
- 【CC-○】 Center Square, Central Hall, School of Engineering (C area)
- 【ELCB-○】 Engineering Laboratory Complex Building, School of Engineering (C area)
- 【ES-○】 Graduate School of Environmental Studies Research Building (Lecture Room) (J area)
- 【RIEC-○】 Research Institute of Electrical Communication <Katahira Campus (G area) >
- 【IFS-○】 Institute of Fluid Science< <Katahira Campus (C area) >

The 1st Quarter courses will be held on this period:
Monday, April 10th - Friday, June 9th.

The 2nd Quarter courses will be held on this period:
Monday, June 5th - Monday, August 7th.

※ Methods of Sociological Interviewing is supposed to register by those who are taking the Literacy for Information Technology,New Education and Knowledge society program.
The other students are supposed to register to Methods of Sociological Fieldwork(1).

◎ Courses marked with ＊ are "Common fundamental subject".

◎ The lectures which are not taken in your affiliated department are regarded as "Related subject".

◎ Courses written in red will be "every other year ".

# GSIS Master Course Timetable (Fall Semester 2025)

Department Color Code: Computer and Mathematical Sciences | System Information Sciences | Human-Social Information Sciences | Applied Information Sciences

## Mon

### 1st 8:50~10:20

- Acoustic Information Science — Sakamoto, A. Ito — 【GSIS-207】
- Computer Vision 1st Quarter — Okatani — 【ME-7 (A02)】

### 2nd 10:30~12:00

- Statistical Modeling — Araki — 【GSIS-206】
- 社会心理情報学 — 邑本 — 【情報-512】

### 3rd 13:00~14:30

- Design and Analysis of Information Systems — T.Ito,Chun — 【GSIS-207】
- Cryptographic Protocols — Mizuki — 【GSIS-206】
- Fundamental Artificial Intelligence 1st Quarter — J.Suzuki — 【Kawauchi M 201】

### 4th 14:40~16:10

- Introduction to Critical Thinking — Omori — 【GSIS-310】
- Applied Data Sciences — 〈GSIS〉 Nishi,Siwalee Cholek Michael Zielewski 〈GSLS〉 S.Sato,T.Makino, Hidema,Y.Nagata — 【GSIS-207】 〈GSEM〉 Matsuda, Ishihara,Ishigaki, Dai Runyu

### 5th 16:20~17:50

- Practical Information Literacy B — Wada — 【GSIS-514】

## Tue

### 1st 8:50~10:20

- High-Performance Computing 1st Quarter — Takizawa — 【GSIS-207】

### 3rd 13:00~14:30

- Information Network Systems — Suganuma — 【EIPE-Bldg. No.1 (D10),1A】
- Space Robotics 1st Quarter — Yoshida — 【ME-2 (A02)】
- Computer Architecture 2nd Quarter — H. Kobayashi, M. Sato — 【GSIS-207】
- Urban Economics — R.Itoh — 【GSIS-412】

### 4th 14:40~16:10

- Transportation Systems Analysis — Iryo Takamasa Tokyo U — 【CEA-205(F01)】

### 5th 16:20~17:50

- Biomaterials Informatics — Yamada — 【Online】

## Wed

### 1st 8:50~10:20

- Theories of Comparative Politics — Harada — 【GSIS-512】

### 2nd 10:30~12:00

- Information Contents — Kitamura, Takashima — 【RIEC-M531(G10)】
- Advanced Geometric Analysis — Funano — 【GSIS-711】
- Socioeconomic Network Analysis — Fujiwara,Fujiki — 【GSIS-412】

### 3rd 13:00~14:30

- Logic for Information Science — Nakano — 【RIEC-M531(G10)】
- Information and Communications Technology — Kato, Kawamoto — 【EIPE-Bldg. No.1 (D10),2A】
- Cognitive Science of Higher Mental Functions — Matsumiya, Wada — 【GSIS-207】
- Methods of Sociological Fieldwork(2) — Tokugawa — 【GSIS-512】
- Topics in Mathematics — Tanaka — 【GSIS-610】

### 4th 14:40~16:10

- Advanced Applied Data Analysis — Shiga,Yamada Kitai,Kodate — 【GSIS-207】
- Software Construction — Unno — 【RIEC-M531(G10)】

### 5th 16:20~17:50

- Interdisciplinary Information Sciences* — Yamada,Fukuda — 【GSIS-207】
- Law and Management of Information Security — Kanaya,Hiji, Takaya — 【Online】

## Thu

### 2nd 10:30~12:00

- Cryptology — Sakai, Isobe — 【GSIS-206】
- Study of Civil Society — Tokugawa — 【GSIS-512】
- Natural Language Processing — Inui, Sakaguchi — 【EIPE-Bldg. No.1 (D10),2A】

### 3rd 13:00~14:30

- Mathematical Informatics — Ohzeki — 【GSIS-207】

### 6th 18:00~19:30

- Practical English for Data Science — Yamada etc — 【GSIS-514】

## Fri

### 1st 8:50~10:20

- Spatial Economics — Z.Zeng — 【GSIS-412】

### 2nd 10:30~12:00

- Applied Intelligence Software — Suganuma, Abe,Goto — 【RIEC-M153(G10)】
- Behavioral Analysis — Okumura — 【CEA-203(F01)】

### 3rd 13:00~14:30

- Spatial Information Analysis — Inoue — 【CEA-205(F01)】
- Numerical Analysis 1st Quarter — Yamamoto, Makihara — 【ME-3(A02)】
- Systems Bioinformatics — Kinoshita, Nishi, Kojima, Anzawa, Zhang Lin,Hamabata — 【GSIS-313】
- Foundations of Software Science — Sumii,Matsuda — 【GSIS-207】

### 4th 14:40~16:10

- Academic Writing in English* — Yamada etc — 【GSIS-206】

### 5th 16:20~17:50

- Ageing — Sugiura — 【GSIS-206】
- Foundation and Practical Development of Advanced Technology — Yamada, JEITAInstructor — 【GSIS-207】

## Classroom Code Location (Campus map area)

- 【GSIS-○】 Gradute School of Information Sciences (G area) G01
- 【EIPE-○】 Dept. of Electrical, Information and Physics Engineering, School of Engineering (D,G area)
- 【ME-○】 Dept. of Mechanical Engineering, School of Engineering (A area)
- 【QSE-○】 Dept. of Quantum Science and Energy Engineering, School of Engineering (A area)
- 【CEA-○】 Dept. of Civil Engineering and Architecture, School of Engineering (F area)
- 【CC-○】 Center Square, Central Hall, School of Engineering (C area)
- 【ELCB-○】 Engineering Laboratory Complex Building, School of Engineering (C area)
- 【ES-○】 Graduate School of Environmental Studies Research Building (Lecture Room) (J area)
- 【RIEC-○】 Research Institute of Electrical Communication <Katahira Campus (G area) >
- 【IFS-○】 Institute of Fluid Science< <Katahira Campus (C area) >

The 1st Quarter courses will be held on this period:
Monday, October 2nd - Friday, December 1st.

The 2nd Quarter courses will be held on this period:
Monday, November 27th - Friday, February 2nd.

◎ Courses marked with ＊ are "Common fundamental subject".

◎ The lectures which are not taken in your affiliated department are regarded as "Related subject".

◎ Courses written in red will be "every other year ".

# GSIS Intensive Course and Compulsary Course List (Academic Year of 2025)

## Intensive Course

The following lessons will be intensive lectures for the mentioned major.

The date and time will be announced later in a notice. All the courses in this list are OPTIONAL.

| Subject Name | Open Semester | Intended Department | Instructor | Schedule |
|---|---|---|---|---|
| Introduction to Time Series and Spatial Modeling | Fall | All Department | Shinsuke Koyama | |
| Computer Science Fundamentals | Fall | All Department | Kazunori Yamada<br>Natsuda Kaothanthong | |
| Information Technology Fundamental | Spring | All Department | Kazunori Yamada<br>Pawan Tripathi | |
| Mathematical Structures, Special Lecture | Spring | Computer and Mathematical Sciences, System Information Sciences | Tomoki Yamagichi | |
| Mathematical System Analysis, Special Lecture | Spring | Computer and Mathematical Sciences, System Information Sciences | Masaaki Imaizumi | |
| English Presentation | Spring | All Department | Steven John Bretherick | |
| Hands-on introduction to cyber attacks and their countermeasures | Spring | All Department | Satoru Izumi<br>Hiroshi Tsunoda<br>KEENI Glenn Mansfield | |
| Embodied Intelligence and Robotics | Spring | All Department | Masashi Konyo | |
| Internet and Information Security | Fall | All Department | KEENI Glenn Mansfield | |
| Data Engineering<br>(WEB course registration) | Spring | All Department | Kazunori Yamada etc | |
| Data Science Training I<br>(WEB course registration) | Spring | All Department | Kazunori Yamada etc | |
| Data Science Training II<br>(WEB course registration) | Spring | All Department | Kazunori Yamada etc | |
| Data Science Programming Basics<br>(WEB course registration) | Spring | All Department | Kazunori Yamada etc | |

◎ Courses marked with ＊ are "Common fundamental subject". ◎ Courses written in red will be "every other year ".

## Compulsory Course

The following lessons will be conducted in respective course / laboratory. The lessons in this list are SELECTABLE COMPULSORY.

| Subject Name | Open Semester | Intended Department | Instructor | Remarks |
|---|---|---|---|---|
| Seminar on Mathematical Structures | ——— | Computer and Mathematical Sciences | | |
| Seminar on Computer and Information Sciences | ——— | | | |
| Advanced Seminar on Mathematical Structures A | ——— | | | |
| Advanced Seminar on Mathematical Structures B | ——— | | | |
| Advanced Seminar on Computer and Information Science A | ——— | | | |
| Advanced Seminar on Computer and Information Science B | ——— | | | |
| Seminar on Mathematical System Analysis | ——— | System Information Science | | |
| Seminar on System Information Sciences | ——— | | | |
| Advanced Seminar on Mathematical System Analysis A | ——— | | | |
| Advanced Seminar on Mathematical System Analysis A | ——— | | | |
| Advanced Seminar on System Information Sciences A | ——— | | | |
| Advanced Seminar on System Information Sciences B | ——— | | | |
| Seminar on Human-Social Information Sciences I - III | ——— | Human-Social Information Sciences | | |
| Advanced Seminar on Human-Social Information Sciences A I - III | ——— | | | |
| Advanced Seminar on Human-Social Information Sciences B I - III | ——— | | | |
| Seminar on Information Literacy and Education Design | | Human-Social Information Sciences (LItNEX Course) | | |
| Advanced Seminar on Information Literacy and Education Design A | | | | |
| Advanced Seminar on Information Literacy and Education Design B | | | | |
| Project Study on Information Literacy and Education Design | | | | |
| Seminar on Applied Information Sciences Ⅰ・Ⅱ | ——— | Applied Information Sciences | | |
| Advanced Seminar on Applied Information Sciences A I - II | ——— | | | |
| Advanced Seminar on Applied Information Sciences B I - II | ——— | | | |
| Advanced Computer Training * | ——— | | | |
| Innovation Oriented Seminar (on Mechanical Engineering) * | ——— | Computer and Mathematical Sciences, System Information Sciences, Applied Information Sciences | | |

* These courses are OPTIONAL.

(Updated on April 1, 2025)

# GSIS Course Timetable

## Academic Year 2025

(3-year Doctoral Program)

In case there is a change in the timetable, the latest version will be updated
on the web page of the Graduate School of Information Science (https://www.is.tohoku.ac.jp/).
Be sure to check it frequently.

Graduate School of Information Sciences
Tohoku University

# GSIS Doctoral Program Course List (Academic Year of 2025)

## Compulsory / Optional Subjects

Please follow the requirement of each laboratory or program you belong to.

| Subject name | Open Semester | | Intended Department | Instructor | Compulsory / Optional |
|---|---|---|---|---|---|
| Fundamental Doctor Course Seminar | ――― | ――― | All Departments (except LItNEX Course) | - | Compulsory |
| Doctor Course Seminar A | ――― | ――― | All Departments (except LItNEX Course) | - | Compulsory |
| Doctor Course Seminar B | ――― | ――― | All Departments (except LItNEX Course) | - | Compulsory |
| Advanced Doctor Course Seminar | ――― | ――― | All Departments (except LItNEX Course) | - | Optional |
| Fundamental Seminar on Information Literacy and Education Design I | ――― | ――― | Human-Social Information Sciences (LItNEX Course) | - | Compulsory |
| Doctoral Seminar on Information Literacy and Education Design I | ――― | ――― | Human-Social Information Sciences (LItNEX Course) | - | Compulsory |
| Doctoral Seminar on Information Literacy and Education Design II | ――― | ――― | Human-Social Information Sciences (LItNEX Course) | - | Compulsory |
| Advanced Doctoral Seminar on Information Literacy and Education Design II | ――― | ――― | Human-Social Information Sciences (LItNEX Course) | - | Optional |
| Advanced Seminar I * （WEB course registration） | ――― | ――― | All Departments | ――― | Optional |
| Advanced Seminar II * （WEB course registration） | ――― | ――― | All Departments | ――― | Optional |
| Data Science Challenge * （WEB course registration） | Spring | (5th.6th hr.) 【GSIS-206】 | All Departments | Kazunori Yamada | Optional |
| Data Science Special Training | ――― | ――― | All Departments (GP-DS students) | ――― | Optional |

* These courses are compulsory for DSP II ,AIQDS/ GP-DS students