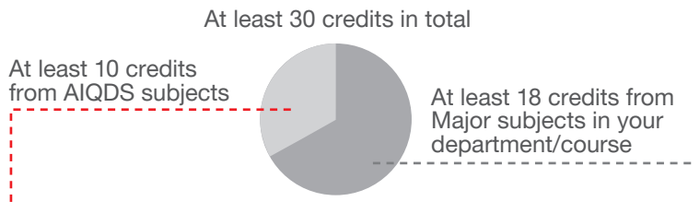
Overview

Master's course

You need to earn at least 18 credits from Major subjects in your department/course and at least 10 credits from AIQDS subjects listed on the other page, where AIQDS subjects are regarded as Related subjects in your department/course. In total, at least 30 credits are obligatory for graduation.



AIQDS Subjects provided by GSIS

Fundamentals of Data Sciences
Take at least 2 subjects (1 subject = 2 credits)

Subjects for Data Sciences
Take at least 1 subject from each category Ⅰ, Ⅱ, Ⅲ (1 subject = 2 credits)

Training Subjects (1 subject = 1 credit)
Big Data Skill Up Training For those who are not so familiar with mathematical and statistical calculations using R and Python, please take this subject
Data Science Training Camp Ⅰ, Ⅱ ※Compulsory subject

【Option】Internship (1-2 credits)

Doctor's course

Although the doctor's course students are expected to devote themselves mostly to their own research work, Advanced Seminars Ⅰ, Ⅱ and Big Data Challenge are compulsory for them to complete the AIQDS program.

High Light

Learning Japanese Language & Culture

The participants are highly encouraged to learn Japanese language and culture, because this is one of primary reasons for studying abroad.
"Tohoku University Japanese Language Program at Kawauchi" offers you a wide variety of opportunities of learning including an e-learning system.
http://www.he.tohoku.ac.jp/SJLE/JLPK/guide-e.pdf

Curriculum

Master's course

	Fall Semester	Spring Semester
Fundamentals of Data Sciences Take at least 2 subjects (1 subject = 2 credits)		
	Data Science Basic	Information Ethics
	Interdisciplinary Information Sciences	Legal System in Information Society
Subjects for Data Sciences Take at least 1 subject from each category Ⅰ, Ⅱ, Ⅲ (1 subject = 2 credits)		
Data Sciences Ⅰ - Sensing - Storage - Computing	High-Performance Computing	Computer Structures
	Computer Architecture	Theory of Differential Equations
	Information and Communications Technology (Odd-numbered year only)	
	Foundations of Software Science (Odd-numbered year only)	
	Internet and Information Security (Intensive course)	
Data Sciences Ⅱ - Analysis - Mining	Computer Vision	Physical Fluctuomatics
	Design and Analysis of Information Systems (Odd-numbered year only)	Intelligent Systems Science (Odd-numbered year only)
	Natural Language Processing	Intelligent Control Systems (Even-numbered year only)
	Statistical Modeling	Game Theory for Applied Economics
	Cryptology	IT Fundamental (Intensive course)
	Spatial Information Analysis	
	CS Fundamentals (Intensive course)	
Data Sciences Ⅲ - Problem Solving - Design	Spatial Economics	Mathematical Urban Modeling
	Applied Intelligence Software	System Control Science
		Applied Data Sciences
Training Subjects (1 subject = 1 credit)		
Big Data Skill Up Training	Training of R and Python	Training of R and Python
※Data Science Training Camp	Training Camp Ⅰ, Training Camp Ⅱ	Training Camp Ⅰ, Training Camp Ⅱ

※Compulsory for Master's course students

Doctor's course

※Advanced Seminar Ⅰ, Ⅱ	Data science-related meetings, symposia, and conferences assigned by AIQDS (1 credit each)
※Big Data Challenge	Project-based learning based on knowledge and skills of data science (2 credits)

※Compulsory for Doctor's course students