## Course Requirements

## □ Master's program

- 1) Thesis Master's Degree
- A. Graduation Credits: Minimum 33 credits and 1AU
- B. Mandatory General Course Requirements: 3 credits(1 subject) and 1AU
  - Select one course from the following list: CC500 Scientific Writing, CC511 Probability and Statistics,
    CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments, CC530
    Entrepreneurship and Business Strategies, CC532 Collaborative System Design and Engineering
- CC010 Special Lecture on Leadership(non-credit, general scholarship student and foreign students are excluded)
- CC020 Ethics and Safety I(1AU)
- C. Mandatory Major Course Requirements: None
- D. Elective Course Requirements: Minimum 18 credits
- Among the following 4 tracks, select 3 tracks and take one course per each track. (9 credits)

Fundamental	WST500	Introduction to Web Science Technology
	WST501	Fundamentals of Searching Web-scale Datasets
	WST510 *CS542	Internet System Technology
	WST590	Research Methods for Information Behaviors on the Web
	CS500	Design and Analysis of Algorithm
	CS510	Computer Architecture
	CS520	Theory of Programming Language
	CS522	Theory of Formal Language and Automata
	CS600	Graph Theory
Enabling	WST520	Software Engineering for the Web World
	WST620	Research on Web Software Dependability
	WST622 *CS646	Digital Contents Security
	WST630 *CS610	Parallel Processing
	WST665	Large Scale Image & Video Retrieval
	CS530	Operating System
	CS540	Network Architecture
	CS548	Advanced Information Security
	CS550	Software Engineering
	CS560	Database System
	CS570	Artificial Intelligence and Machine Learning
	CS574	Natural Language Processing I
	CS580	Computer Graphics
	CS664	Advanced Database System
	WST540	Web Search and Text Analysis
	WST550 *CS590	Semantic Web
Information content	WST621	External Memory Data Structures
	WST640 *CS660	Information Storage and Retrieval
	WST650	Linguistic Web Science

	CS562	Database Design
Social and collaborative	WST560	Mobile Web and Application
	WST591	Web Audience Research
	WST660	Advances in Mobile and Wireless Networks
	WST670 *GCT673	Online Social Network
	WST690	Human-Centered Data Analysis

- \* mark represents a substitutive subject.
- Among the remaining minimum 9 credits, 6 credits should be fulfilled with the courses of WST 500 level or above offered by the Web Science Technology Division.
- E. Research Credits: Minimum 6 credits(including seminar 1 credit, seminar credits are not required for foreign students.)
- 2) Coursework Master's Degree
- A. Graduation Credits: Minimum 33 credits and 1AU
- B. Mandatory General Course Requirements: 3 credits(1 subject) and 1AU
  - Select one course from the following list: CC500 Scientific Writing, CC511 Probability and Statistics,
    CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments, CC530
    Entrepreneurship and Business Strategies, CC532 Collaborative System Design and Engineering
- CC010 Special Lecture on Leadership(non-credit, general scholarship student and foreign students are excluded)
- CC020 Ethics and Safety I(1AU)
- C. Mandatory Major Course Requirements: None
- D. Elective Course Requirements: Minimum 27 credits
- Among the 4 tracks(Same as Thesis Master's program), select 3 tracks and take one course per each track. (9 credits)
- Among the remaining minimum 18 credits, 6 credits should be fulfilled with the courses of WST 500 level or above offered by the Web Science Technology Division.
- E. Research Credits: Minimum 3 credits(including credits from individual study and 1 credit from seminar, seminar credits are not required for foreign students.)
- F. It only applied with the adviser professor and the dean of department approval.

## □ Integrated master's and doctoral program

- A. The curricula of existing master's and PhD programs are followed.
- B. The curriculum credits and research credits earned from the master's course may be cumulatively counted.

## □ Doctoral program

- A. Graduation Credits: Minimum 60 credits and 1AU
- B. Mandatory General Course: 3 credits(1 subject) and 1AU
- Same as master's program requirements. (students exempt from this requirement in doctoral program when already fulfilled in master's program)
- CC020 Ethics and Safety I (1AU)
- C. Mandatory Major Course: none
- D. Elective Course: Minimum 27 credits
- Among the 4 tracks(same as master's program), select 3 tracks and take one course per each track. (9 credits)

- Among the remaining minimum 18 credits, 9 credits should be fulfilled with courses of WST 500 level or above offered by the Web Science Technology Division.
- E. Research Credits: Minimum 30 credits (including seminar 1 credit, seminar credits are not required for foreign students.)
- \* The course credits earned in the Master's course work can be used towards the Doctoral degree. (except research credits)