COURSE DETAIL

AUTOMATA AND FORMAL LANGUAGES
Country Korea, South
Host Institution Yonsei University
Program(s) Yonsei University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 118
UCEAP Course Suffix
UCEAP Official Title AUTOMATA AND FORMAL LANGUAGES
UCEAP Transcript Title AUTOMATA & LANGUAGE
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course introduces basic ideas and techniques for designing computer systems with intelligence (systems collecting intelligence from public data and making statistical inferences to make an informed decision). This course provides formal language and automata theory examining fundamental knowledge on computation and computability. Topics include finite-state automata (regular languages), pushdown automata (context-free languages) and Turing machines (unrestricted languages).

The course covers how to design intelligent search and inference; how to aggregate data-driven intelligence; and how to build intelligence into systems. Text: Hopcroft, Motwani and Ullman, INTRODUCTION TO AUTOMATA THEORY, LANGUAGES AND COMPUTATION. Assessment: Exams (75%), quiz and homework (20%), class participation (5%).

Language(s) of Instruction
English

Host Institution Course Number
CSI3109

Host Institution Course Title
AUTOMATA AND FORMAL LANGUAGES

Host Institution Course Details
https://underwood1.yonsei.ac.kr/

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science

Course Last Reviewed

2025-2026

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