COURSE DETAIL

FORMAL LANGUAGES AND AUTOMATA THEORY
Country Taiwan
Host Institution National Taiwan University
Program(s) National Taiwan University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 109
UCEAP Course Suffix
UCEAP Official Title FORMAL LANGUAGES AND AUTOMATA THEORY
UCEAP Transcript Title AUTOMATA THEORY
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course examines major concepts in the theory of computation. Topics covered include deterministic and nondeterministic finite state automata, regular expressions, context-free languages, pumping lemma and push-down automata, equivalence of context-free grammars and push-down automata, Turing machines, decidable languages, reducibility, computational complexity, and NP-completeness. Textbooks: INTRODUCTION TO THE THEORY OF COMPUTATION by M. Sipser, INTRODUCTION TO AUTOMATA THEORY, LANGUAGES, AND COMPUTATION by J. Hopcroft, J. Ullman. Assessment: homework, midterm exam, final exam.

Language(s) of Instruction
English

Host Institution Course Number
CSIE3110

Host Institution Course Title
FORMAL LANGUAGES AND AUTOMATA THEORY

Host Institution Course Details
https://www.csie.ntu.edu.tw/~tonytan/teaching/2018a-aut/2018a-aut.html

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science & Information Engineering

Course Last Reviewed
2022-2023

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