COURSE DETAIL

AUTOMATA LOGIC AND GAMES

Country
Israel

Host Institution
Israel Institute of Technology, Technion/Neubauer

Program(s)
Technion-Institute of Technology

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
107

UCEAP Course Suffix

UCEAP Official Title
AUTOMATA LOGIC AND GAMES

UCEAP Transcript Title
AUTOMATA LOGIC&GAME

UCEAP Quarter Units
3.00

UCEAP Semester Units
2.00

Course Description

This course covers automata over infinite words: acceptance conditions, expressiveness, algorithms, and constructions. Topics include translation between types of automata; temporal logic: linear temporal logic (LTL), monadic second-order logic (MSO), and the fragment S1S; translation between logics and automata; LTL model checking; games: infinite games on graphs; solving reachability, Buchi, and parity games; and LTL synthesis using parity games.

Language(s) of Instruction
English

Host Institution Course Number
236025

Host Institution Course Title
AUTOMATA LOGIC AND GAMES

Host Institution Campus

Host Institution Faculty
Graduate School

Host Institution Degree
Joint

Host Institution Department
Computer Science

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