

# 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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