COURSE DETAIL

LOGIC FOR PROOFS AND PROGRAMS
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 141
UCEAP Course Suffix
UCEAP Official Title LOGIC FOR PROOFS AND PROGRAMS
UCEAP Transcript Title LOGIC/PROOFS&PROG
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course introduces logic as a means for specifying and solving computational problems. It explores how logic can be used to represent computational problems, how these representations can be proven correct, and how they can be executed on a computer. Students learn about logic as formal systems (semantic, axiomatic, and deductive) and how to write proofs in the different systems. They also learn how to use a proof assistant such as Coq and how to program in a logic programming language such as Prolog. Topics include classical and intuitionistic logic, SAT, Peano's axioms, Hoare logic, and other selected logic systems.

Language(s) of Instruction
English

Host Institution Course Number
CS3234

Host Institution Course Title
LOGIC FOR PROOFS AND PROGRAMS

Host Institution Course Details

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Computer Science

Course Last Reviewed
2021-2022

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