COURSE DETAIL

AUTOMATED REASONING

Country
United Kingdom - Scotland

Host Institution
University of Edinburgh

Program(s)
Scottish Universities,University of Edinburgh

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
155

UCEAP Course Suffix

UCEAP Official Title
AUTOMATED REASONING

UCEAP Transcript Title
AUTO REASONING

UCEAP Quarter Units
4.00

UCEAP Semester Units
2.70

Course Description

This course describes how reasoning can be modelled using computers. It provides a route into more advanced uses of theorem proving in order to solve problems in mathematics and formal verification. Major emphases are on how knowledge can be represented using propositional, first-order, and higher-order logic; how these representations can be used as the basis for reasoning; and how these reasoning processes can be guided to a successful conclusion through a variety of means ranging from fully-automated to interactive ones. Students develop a thorough understanding of modern, interactive theorem proving via lectures, tutorials, and an assignment.

Language(s) of Instruction
English

Host Institution Course Number
INFR09042

Host Institution Course Title
AUTOMATED REASONING

Host Institution Campus
Edinburgh

Host Institution Faculty

Host Institution Degree

Host Institution Department
Informatics

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