COURSE DETAIL

LOGIC FOR SYSTEM ANALYSIS

Country
Norway

Host Institution
University of Oslo

Program(s)
University of Oslo

UCEAP Course Level
Upper Division

UCEAP Subject Area(s)
Computer Science

UCEAP Course Number
102

UCEAP Course Suffix

UCEAP Official Title
LOGIC FOR SYSTEM ANALYSIS

UCEAP Transcript Title
LOGIC SYSTM ANALYS

UCEAP Quarter Units
8.00

UCEAP Semester Units
5.30

Course Description

This course shows how logical methods can be used to model and reason about data types and distributed systems and gives a high-level introduction to distributed systems. The course therefore briefly introduces different classes of distributed systems – including transport protocols, database protocols, classic distributed algorithms, and cryptographic protocols – as well as different forms of communication and some fault tolerance. Also covered are modeling and analysis of distributed systems and an introduction to different classes of requirements of distributed systems. Equational logic and rewriting logic and the analysis tool Maude are used to formalize and reason about the systems, in addition to reasoning about properties such as termination and invariance.

Language(s) of Instruction

English

Host Institution Course Number

INF3232

Host Institution Course Title

LOGIC FOR SYSTEM ANALYSIS

Host Institution Campus

Mathematics and Natural Sciences

Host Institution Faculty

Host Institution Degree

Host Institution Department

Informatics

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