

# 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 Course Details

## Host Institution Campus

Mathematics and Natural Sciences

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Informatics

## Course Last Reviewed

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