COURSE DETAIL

INTRODUCTION TO RISK AND RELIABILITY ANALYSIS
Country Norway
Host Institution University of Oslo
Program(s) University of Oslo
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Statistics Mathematics
UCEAP Course Number 109
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO RISK AND RELIABILITY ANALYSIS
UCEAP Transcript Title RISK & RELIABILITY
UCEAP Quarter Units 8.00
UCEAP Semester Units 5.30

Course Description
This course provides the probability theoretical basis for calculating the reliability of a system. This means the likelihood that a system functions when the reliability of the individual components the system consists of is known. Examples of systems are energy systems and networks. The course also deals with various examples of risk analysis in industrial applications. The course subject is illustrated by various simulation techniques. The course discusses topics including what coherent systems are, and how to represent such systems by paths and cuts; how to compute the reliability for systems of components; what discrete event simulations is, and how to apply different simulation techniques to do computations related to risk and reliability analysis; how to compute the reliability importance of components; and how to perform a risk and reliability analysis in various practical situations. This course is an introduction to more advanced studies, but is also suitable as an aid subject in other professional circles and as further and postgraduate education for realists and engineers.

Language(s) of Instruction
English

Host Institution Course Number
STK3405

Host Institution Course Title
INTRODUCTION TO RISK AND RELIABILITY ANALYSIS

Host Institution Campus
Mathematics and Natural Sciences

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mathematics

Print