



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1SE013 Simulering, 7,5 högskolepoäng
Simulation, 7.5 credits

Main field of study

Total Quality Maintenance

Subject Group

Industrial Engineering and Management

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by the Board of the School of Engineering 2011-06-13

The course syllabus is valid from spring semester 2012

Prerequisites

Introduction to industrial operations, 1SE803, 7,5 credits, Probability and statistics, 1MA201, 7,5 credits, Engineering economics 1ZT003, 7,5 credits, Quality technology 1ZT002, 7,5 credits and Computer Aided Engineering, 1MT012 7,5 credits or similar.

Objectives

After completing the course the student is expected to be able to

- Account for basic concepts in modelling and simulating of industrial production.
- Use simulation as a mean for analysing and evaluate industrial systems

Content

- Modelling of production systems
- Simulation
- Tools for simulation
- Queue theory
- Identification and presentation of production and product flows

Type of Instruction

The teaching consists of lectures, group work, laboratory work and case study.

Examination

The course is assessed with the grades U,3,4 or 5.

The examination is based on submitted reports and oral or written presentation of compulsory assignments.

Course Evaluation

When the course has finished, an evaluation is compiled. The results are reported to the students and then archived according to the rules of the school.

Other

Some course elements may involve costs that have to be defrayed by the course participant. The course is offered in English if there are international participants.

Required Reading and Additional Study Material

Ljung, Glad, *Modellbygge och simulering*, Studentlitteratur, pages 350/422

Kelton, Sadowski, Sturrock, *Simulation with Arena*, 4th ed., McGraw Hill pasges 400/500