

SYLLABUS

Virtual environments Advanced 7.5 credits M7010E

Virtuella miljöer (fortsättningskurs)

Course syllabus admitted: Autumn 2011 Sp 1 - Spring 2014 Sp 4

**DECISION DATE
2011-02-04**

Virtual environments Advanced 7.5 credits M7010E

Virtuella miljöer (fortsättningskurs)

Second cycle, M7010E

Education level
Second cycle

Grade scale
G U 3 4 5

Subject
Medieteknik

Subject group (SCB)
Computer Technology

Entry requirements

Courses of at least 90 credits at first cycle including the following knowledge/courses. The student is assumed to be able to program large programs in an object-oriented language like Java, and write programs that deal with scene graphs and communicate with each other over a computer network (what the LTU courses D0002E Computer Communications, D0010E Object-oriented programming and design and M7002E Computer graphics and virtual environments gives) .

Selection

The selection is based on 30-285 credits

Examiner

Håkan Jonsson

Course Aim

The goal is to give knowledge about

- virtual environments when these are distributed, dynamic, and interactive.

implementation techniques of distributed virtual environments over the Internet such that the student can

- construct realistic distributed virtual environments.

Contents

Properties of networked virtual environments, communication architectures, dynamic shared state, systems design, resource management for scalability and performance.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures and programming assignments (a project in groups) in the computer lab.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Written exam. Mandatory programming assignments. Hand-in assignments.

Overlap

The course M7010E is equal to SMM011

Literature. Valid from Autumn 2007 Sp 1

Networked Virtual Environments: Design and Implementation by Sandeep Singhal and Michael Zyda. Addison-Wesley, 1999. ISBN: 0201325578.

Course offered by

Department of Computer Science, Electrical and Space Engineering

Items/credits

| Number | Type | Credits | Grade |
|--------|--------------|---------|-----------|
| 0001 | Written exam | 3 | G U 3 4 5 |
| 0002 | Project | 4.5 | G U 3 4 5 |

Last revised

by huvudansvarig utb.ledare vid SRT, Jonny Johansson 2011-02-04

Syllabus established

The syllabus was established by the Department of Computer Science and Electrical Engineering February 28, 2007 and is valid from Autumn semester 2007.