Media Technology - Bachelor Project

Programme course

18 credits

Medietekniskt kandidatprojekt

TNM094

Valid from:

Determined by

Date determined

Main field of study
Media Technology and Engineering

Course level
First cycle

Advancement level
G2X

Course offered for
- Media Technology and Engineering, M Sc in Engineering

Prerequisites
For admission to the course, see LiTH's general rules for the candidate's work for the Master of Science Programs in the student handbook.

Intended learning outcomes

To pass the course the student must show the ability to Content knowledge:

- systematically integrate knowledge acquired during their studies
- apply the method knowledge and subject-specific knowledge in the subject area
- assimilate the contents of the relevant literature and to relate their work to it

Individual and professional skills:

- formulate questions and limit the work within given time limits
- seek and evaluate scientific literature

Working in groups and communicate:

- plan, implement and report on an independent work in the form of a group project
- professionally express themselves orally and in writing
- critically examine and discuss written and orally presented work independently

engineering skills:

- create, analyze and/or evaluate technical solutions
- make judgments with respect to scientific, social and ethical aspects

Programme specific objectives:

- apply Media Technology skills, such as publishing, audio and video technology, computer graphics and visualization

Course-specific objectives:

- follow established protocols for development projects (project management, requirements handling, system architecture, program design, implementation, documentation, testing, maintenance)
- make use of tools, software libraries, standards and design patterns to, with regard to time efficiency and quality, improve the development of software

Course content

- Principles in Software Engineering
- Development methodologies
- Design Patterns
- Modelling notations

Teaching and working methods

This course introduces theories and principles in Software Engineering and development methodology through lectures, as examined through individual reports. In laboratory exercises, students try out the practical use of Software Engineering tools and practice skills. Theories and skills are then used in an extensive development project in groups of 5-8 students. Understanding and skills are assessed through project meetings and a final presentation of the project results, both in writing and orally.

The project is linked to the Swedish language programme where students receive both help with writing and feedback from reports and presentations.

Examination

UPG2	Opposition	0.5 credits	U, G
UPG1	Written assignment	1.5 credits	U, G
PRA1	Project work	14 credits	U, G
LAB1	Laboratory work	2 credits	U, G

In PRA1 is included mandatory seminars where the project's progression is discussed, a group report and a presentation, that are the basis for the project's grade. UPG1 is a written personal essay that reflects on the implementation of the project on the basis of and with links to the theories discussed in the lectures. Grades are given as Fail or Pass.

Grades

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Department

Institutionen för teknik och naturvetenskap

Director of Studies or equivalent

Camilla Forsell

Examiner

Karljohan Lundin Palmerius

Course website and other links

http://www.itn.liu.se/~karlu20/courses/TNM094

Education components

Preliminary scheduled hours: 56 h
Recommended self-study hours: 424 h

Course literature

Pfleeger & Atlee, Software Engineering Theory and Practice, samt kompletterande litteratur från Internet.