Professionalism for Engineers, part 1

Programme course

1 credits

Ingenjörsprofessionalism, del 1

TDDD70

Valid from: 2017 Spring semester

Determined by
Board of Studies for Computer Science and Media Technology

Date determined
2017-01-25

Main field of study
No Main Field of Study

Course level
First cycle

Advancement level
G1N

Course offered for
- Computer Science and Engineering, M Sc in Engineering
- Computer Science and Software Engineering, M Sc in Engineering

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
The course requires experience and knowledge from studies in the lower grades in the degree program in Computer Science and Engineering or Computer Science and Software Engineering acquired in parallel with this course.

Intended learning outcomes
After completing the course, all six modules, a student shall be able to:

- Plan, prioritize, perform within the stipulated time, follow up, and reflect on their own work
- Reflect on their own skills and approaches
- Reflect on their education and their own learning
- Structure and present information both orally and written
- Communicate with others in roles as a colleague, mentee, coach, and mentor
- Reflect on what leads to effective team work and personal effort in interaction with other
- Reflect on the engineer's professional role
- Analyse ethical issues in software development and in organisations

Course content
Literature will be listed on the course website.

Teaching and working methods

The course covers four areas: personal effectiveness, personal development, social skills and the engineer's professional role. These areas will be addressed during the lectures, classes, and seminars. Each area consists of a number of elements as follows:
Personal effectiveness:

- Personal management: planning, prioritization, monitoring, time-study
- Personal leadership: vision, goals, Johari window, the power of thoughts and feelings
- Coaching: own coach, coaching others, and encouragement

Personal development:

- Self awareness: bad and good habits, thoughts, feelings, behaviour, and initiative step model
- Self motivation: positive thinking, mental attitude, reward, and procrastination
- Presentation Skills: oral presentation techniques
- Mentoring: reflection, seek first to understand then to be understood
- Coaching: own coach, coaching others, and encouragement

Social skills:

- Team work: group processes and dynamics, team development, and changes
- Interpersonal leadership: dependencies, win/win perspective, dysfunctional teams, empathy, and creative collaboration
- The art of communication: constructive feedback, active listening, and the experience cube

Engineer's professional role:

- Engineering: technical and interpersonal skills, values, overall perspective, and business sense
- Ethics: essential ethics applicable to data ethics, integrity and developing company culture
- Life career: I corporation, lifelong learning, continuous quality improvement, stress, and sleep

Examination

UPG1	Assignment	1 credits	U, 3, 4, 5

The course runs over three years and examined by each module. Examination by data presented both orally and in writing. Examination by also actively participation in mandatory dialogue seminars addressing specific tasks. Absence managed with a written analysis and reflection of the texts discussed.

Grades
Four-grade scale, LiU, U, 3, 4, 5

Department
Institutionen för datavetenskap

Director of Studies or equivalent
Ahmed Rezine

Examiner
Aseel Berglund

Course website and other links
http://www.ida.liu.se/~TDDD70/

Education components
Preliminary scheduled hours: 23 h
Recommended self-study hours: 4 h

Course literature
Litteratur anges på kursens hemsida.

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.