



GÖTEBORG UNIVERSITY
The Faculty Board of the IT Faculty

DIT550, Master Thesis in Computer Science, 30 higher education credits

Second Cycle/A2E

This English syllabus is the binding document.

1. Confirmation

The syllabus was confirmed by the Faculty Board of IT Faculty on 2008-02-08 and revised to be valid from autumn semester, 2009.

Field of education: Computer Science.

Responsible department: Computer Science and Engineering (D&IT).

2. Position in the educational system

This course, 30 higher education credits, is given as part of the Master's programme in Computer Science at the University of Gothenburg, and constitutes the final thesis work for that programme.

Level for the course in relation to degree requirements is Master's degree, code A2E.

3. Entry requirements

(In the following, 'higher education credits' is abbreviated by 'hec'.)

To be eligible for this course, the equivalent of 90 hec is required, not counting credits from an earlier, first cycle (Bachelor) degree. At least 60 hec (or more) must come from courses on the advanced (Master) level, out of which 45 hec (or more) must come from courses within the Computer Science area. A first cycle (Bachelor) degree is assumed in general. In particular, a Bachelor thesis (15 hec) is required as a prerequisite. The topic of the thesis must be preapproved by the thesis examiner, who also decides whether the student has the required prerequisites to start the particular thesis project.

The thesis report (see below) is written in English, so good knowledge of written and spoken English are required.

4. Course content

The course consists in a thesis work, performed individually or in pairs, under super-

vision of a teacher. The subject of thesis must lie within the area of Computer Science. For a specialisation to appear in the degree, the subject of the thesis must lie within the area of that specialisation, understood in a broad sense.

Students will perform research, theoretical or applied, in parts in collaboration with supervision, and in parts independently. The degree of independence increases during the course.

The main outcome, and main basis for the grading, is a report, written in English, describing the problem, assumptions, methods, choices, results, evaluation of the work, including the comparison to relevant work external to the thesis. The thesis is also presented in a talk, given in English.

5. Outcomes

Knowledge and understanding

After completing the course, a student will be able to

- design solutions to problems in the area of computer science and computer systems, aimed at the realisation of new or modified systems of a more complex nature, with the intention of creating value in accordance with predefined requirements.
- systematically develop and use theories and models, with a critical attitude, and consciously choosing between alternative approaches.

Skills and abilities

After completing the course, a student will be able to

- deal with the changeability of requirements through external circumstances or advancing insight.
- document well and present well a substantial project, both in terms of the new contribution, the design choices taken, the basis of the work, and related work.

Judgement and approach

After completing the course, a student will be able to

- acquire new scientific knowledge through research, i.e., to develop new insights, of a more complex nature, in a purposeful and methodical way, while choosing the right level of abstraction.

6. Required reading

Required reading is partly defined by the supervisor, but the student is also expected to search for, and examine, relevant literature independently.

7. Assessment

For passing the course, the following is required:

- An accepted report written in English.
- An accepted presentation and defense during the thesis presentation seminar held in English.
- Accepted opposition for another Master thesis.
- Attending two other Master thesis presentations.

8. Grading scale

The grades are Pass (G), Pass with distinction (VG), or Fail (U). Granting a High Pass requires approval of a second teacher (entitled to be thesis examiner).