



GENERAL SYLLABUS FOR EDUCATION AT THIRD-CYCLE LEVEL IN MOBILE SYSTEMS

TFN chair 26/05/2008

Third-cycle education subject Mobile Systems is dismantled and admission to the education at the third-cycle level in Mobile Systems has ceased as of 01/01/2011 (ref. no. 156-09 BFST 25/02/2011).

1 Subject Area

Third-cycle education in Mobile Systems includes the study of devices and network solutions that enable the mobility of computer systems and users. Furthermore, it deals with the services and applications for mobile applications and also monitoring solutions for mobile systems.

2 Programme curriculum

Education at third-cycle level in Mobile Systems that concludes with a Degree of Licentiate comprises a total of two years' full time study (120 credits) and consists of a study programme that gives 30-60 credits and a licentiate thesis that gives 60-90 credits.

Education at third-cycle level in Mobile Systems that concludes with a Degree of Doctor comprises a total of four years' full time study (240 credits) and consists of a study programme that gives 60-120 credits and a licentiate thesis that gives 120-180 credits.

The education consists of a combination of courses and an academic thesis. The student designs the education in consultation with the supervisor where the supervisor determines the amount of credits for each course. The design of the courses vary, some being lectured and others primarily built on independent study. There are often smaller projects included in the courses. In general, the courses require great independence in the work compared to courses in education at the second-cycle level.

Under the guidance of the supervisor, the student shall independently formulate and resolve an advanced research assignment and present the results in the academic thesis.

The research assignment may be part of a larger project with several parties with demands for collaboration, and sometimes project management may be involved.

An individual study plan is drawn up for every third-cycle student (according to a fixed model) where the study programme is specified in detail. The individual study plan shall be followed up at least once a year by the third-cycle student and his/her supervisor and then approved by the Head of Department, as delegated by the Board.

3 Eligibility and selection

3.1 General eligibility requirements

As specified in Chapter 7, Section 39 of the Higher Education Ordinance and the local guidelines established in the Admission Rules for Third-cycle Education.



3.2 Specific eligibility requirements

Main field/main subject Computer Science, Engineering Physics, Electrical Engineering, System Sciences or related fields 80 credits/120 credits, second-cycle level.

For applicants with basic eligibility achieved before 01/07/2007, the following special eligibility requirements apply: Bachelor of Science in Engineering, 120 credits or Bachelor of Arts with the main subject according to the above.

Good command of oral and written communication in English.

3.3 Selection

As specified in Chapter 7, Section 41 of the Higher Education Ordinance and the local guidelines established in the Admission Rules for Third-cycle Education.

In the selection of third-cycle education in Mobile Systems, the following applies to the selection criteria:

Personal qualities relevant for third-cycle education.

4 Examinations included in the education

The education consists of courses and an academic thesis. Examinations included in third-cycle programmes are graded Pass or Fail. Course and licentiate thesis grades are decided by specially appointed teachers (examiners). Doctoral thesis grades are decided by a specially appointed grading committee.

4.1 Courses

Courses can be taken individually or in groups. In the latter case, teacher-supervised seminars are often arranged. The course content is selected to create the depth and breadth of expertise necessary for the projects the student is working within. The courses offered within the field vary from one year to the next in order to cater to current directions in research.

Compulsory courses within Mobile Systems are:

Independent study on current research in Mobile Systems (4.5 credits per term).

4.1.1 Recognition of prior studies

As specified in local guidelines established in the Admission Rules for Third-cycle Education.

4.2 Academic thesis

An academic project in the form of a dissertation/thesis in Mobile Systems shall be presented as a homogeneous, cohesive academic work (monograph) or a brief summary - comprehensive study - of academic essays (composite thesis) that the third-cycle student has written alone or together with another person or persons.

For the Degree of Licentiate and Degree of Doctor, the academic thesis shall comply with the publication requirements for reputed international journals within the subject.



Thesis manuscripts shall be presented at one or more research seminars or be subjected to equivalent review through the agency of the department.

The licentiate thesis is defended orally at a public licentiate seminar and is graded Pass or Fail. When the thesis is graded, both the content of the thesis and the defence of the thesis are taken into consideration. The grade of the licentiate thesis is decided by an examiner as delegated by the Head of Department. The doctoral thesis is defended orally at a public disputation and is graded Pass or Fail. When the thesis is graded both the content of the thesis and the defence of the thesis are taken into consideration. Grades for a doctoral thesis should be decided by an grading committee, specifically designated for each thesis.

5 Degree

In Mobile Systems, a third-cycle student who has been admitted to a Degree of Doctor has the possibility to take a Degree of Licentiate after completing one part giving at least 120 credits of the education that will be concluded with a Degree of Doctor.

5.1 Degree objectives

As specified in the Qualifications Ordinance (Higher Education Ordinance, Annex 2 - Degree Ordinance). See also the annex below.

5.2 Degree title

A third-cycle student who takes a Degree of Licentiate in Mobile Systems receives the degree title of Licentiate of Technology.

A third-cycle student who takes a Degree of Doctor in Mobile Systems normally receives the degree title of Doctor of Technology.

Requests for another degree title are made according to established guidelines.



ANNEX

Goal for education at third-cycle level (Qualifications Ordinance, Higher Education Ordinance, Annex 2):

1 Knowledge and understanding

For a Degree of Licentiate 120 credits (higher education credits), the third-cycle student shall:

- demonstrate knowledge and understanding in the field of research including current specialist knowledge in a limited area of this field as well as specialised knowledge of research methodology in general and the methods of the specific field of research in particular.

For a Degree of Doctor 240 credits (higher education credits), the third-cycle student shall:

- demonstrate broad knowledge and a systematic understanding of the research domain, together with deep and current specialist knowledge within a limited area of this research domain and
- demonstrate familiarity with academic methodology in general and with the specific research domain's methods in particular.

2 Competence and skills

For a Degree of Licentiate 120 credits, the third-cycle student shall:

- demonstrate the skills to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake a limited piece of research and other qualified tasks within predetermined time frames in order to contribute to the formation of knowledge as well as to evaluate this work,
- demonstrate the skills in both national and international contexts to present and discuss research and research findings in speech and writing and in dialogue with the academic community and society in general, and
- demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- demonstrate the capacity for scholarly analysis and synthesis as well to review and assess new and complex phenomena, issues and situations autonomously and critically,
- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively, and to plan and use appropriate methods to undertake research and other qualified tasks within predetermined time frames and to review and evaluate such work,
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research,
- demonstrate the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general and
- demonstrate the ability to identify the need for further knowledge and
- demonstrate the capacity to contribute to social development and support the learning of others both through research and education and in some other qualified professional capacity.



3 Judgement and approach

For a Degree of Licentiate 120 credits, the third-cycle student shall:

- demonstrate skills to conduct ethical research assessment in their own research,
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate skills to identify the need for further knowledge and to take responsibility for one's knowledge development.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- demonstrate specialised insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used.

4 Academic thesis

For a Degree of Licentiate 120 credits, the third-cycle student shall:

- have completed an academic thesis of at least 60 higher education credits.

For a Degree of Doctor 240 credits, the third-cycle student shall:

- have completed an academic thesis (doctoral thesis) of at least 120 higher education credits.