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**SCHOOL OF ECONOMICS  
AND MANAGEMENT**  
Lund University

Department of Informatics

## **General Syllabus for Third-Cycle Studies in Informatics for the Degree of Licentiate at Lund University**

This syllabus was adopted by the Board of the School of Economics and Management on 13 April 2007. See also Instructions for Third-Cycle Studies at the School of Economics and Management, adopted on 13 April 2007, reg. no EHL 2007/66.

Third-cycle studies in Informatics are offered to the extent that available resources allow.

### **1 Aim of the programme and learning outcomes**

For a degree of Licentiate in Informatics students must have attained the following outcomes:

In terms of *knowledge and understanding* doctoral students must:

- demonstrate knowledge and understanding in the field of informatics, including current specialist knowledge in a defined part of the field; and
- demonstrate deeper knowledge of scientific methods in general and of methods in informatics in particular.

In terms of *skills and abilities* doctoral students must:

- demonstrate an ability to identify and formulate issues, critically, independently and creatively, and proceeding with scientific precision; to plan a limited research project and other advanced tasks and to carry them out using appropriate methods within specified time limits, so as to contribute to the development of knowledge; and to evaluate this work;
- demonstrate an ability to clearly present and discuss research and research results in dialogue with the scholarly community and society in general, orally and in writing, in both national and international contexts;
- demonstrate the skills required to independently participate in research and development work and to work independently in other advanced contexts.

In terms of *judgement and approach* doctoral students must:

- demonstrate an ability to make ethical assessments in their own research;
- demonstrate insight into the possibilities and limitations of science, its role in society and people's responsibility for how it is used; and
- demonstrate an ability to identify their need of further knowledge and to take responsibility for developing their knowledge.

Students who complete the programme are qualified for the degree of Licentiate.

## **2 Admission Requirements**

An applicant has general eligibility for third-cycle studies if he or she has been awarded a second-cycle degree, has completed course requirements of at least 240 higher education credits, including at least 60 second-cycle credits, or has acquired the equivalent knowledge in some other way, either in Sweden or abroad (Higher Education Ordinance 7:39).

An applicant is eligible to be admitted to third-cycle studies in Informatics if he or she fulfils the general admission requirements and has documented qualifications worth at least 90 credits in Informatics, as well as an independent project (degree project) worth at least 30 credits, of which 15 credits are in Informatics.

Students admitted according to the previous provisions have general eligibility if they have graduated from a degree programme comprising at least 120 credits according to the previous provisions, or if they have the equivalent knowledge. An applicant is also eligible if he or she has acquired the equivalent knowledge in some other way, either in Sweden or abroad.

A person who is not admitted to the third-cycle degree programme in Informatics may be given the right to attend courses.

## **3 Admission and selection**

Admission to third-cycle studies normally takes place twice a year. The department provides information about admission and application dates. The announcement of vacancies on a programme shall be carried out in a manner that ensures the appropriate national and international coverage. The vacancy should also be announced on the notice board and website of the department. A student who has been accepted for a Licentiate degree must submit a new application in order to start studying for a degree of Doctor.

Applications for the third-cycle programme in Informatics must include the following items, which form the basis for selection:

- CV with authenticated copies
- Research plan, including the research issue, purpose, theoretical framework, approach and relationship to previous research;
- Summary of the research plan (maximum 200 words)
- Preliminary timetable for the research
- Preliminary financing plan
- Previously published articles, reports and essays, as well as higher education degree projects.

A financing plan must be settled at the time of admission. The financing plan should clarify the research student's financing for the whole period of study. Admission means that the doctoral student is considered to have sufficient financing to successfully complete the licentiate programme within four years. Admission without adequate financing is not allowed. The resources and expertise available in the department for supervisory purposes should also be considered.

The research student shall register at the beginning of each semester and must specify the degree of activity of his/her studies during the coming semester in consultation with his/her supervisor.

#### **4 Programme structure and content**

The third-cycle programme comprises courses and thesis work. Tuition is given in the form of courses and supervision. A licentiate degree programme normally requires a two-year period of full-time studies. To complete the programme in four years the doctoral student must show dedication to his/her studies and make optimum use of the tuition and supervision provided.

The degree programme comprises 120 higher education credits, divided into a course component of 45 credits and a thesis component of 75 credits.

##### 4.1 Courses and other components

A. The course component includes:

- compulsory courses in research methods and theory, comprising at least 15 higher education credits: courses in quantitative methods, qualitative methods and theory of science
- courses offered by the department or in other disciplines, from which the remaining credits are gained. Internal and external courses are selected in consultation with the supervisor.

Second-cycle courses in Informatics may be credited as a component of other literature-based courses.

Course examiners are appointed by the Head of Department. The examiner must be a professor or a lecturer with the qualifications of a Reader.

B. Research seminars:

As part of their studies and thesis work, students must attend seminars about departmental research activities and seminars in which the ongoing thesis work of doctoral students is presented. The doctoral students must have opportunities to present drafts about theoretical and/or methodological problems in their work, to submit plans, research papers and thesis drafts, as well as critically review research papers and drafts by other doctoral students.

Doctoral students must present their thesis work at a minimum of two seminars:

- A research proposal seminar during the introductory phase, at which a research proposal is presented, providing a more carefully prepared research plan with a research issue, selected methods, preliminary theoretical framework and a plan for further work. There must be at least two reviewers, one of whom must have a doctoral degree.
- A final seminar, at which a complete draft of the licentiate thesis is discussed. There must be at least two reviewers with degrees of Doctor, one of whom must have the qualifications of a Reader.

The research proposal and the draft thesis may be awarded the grades Pass or Fail.

##### 4.2 Individual study plan

An individual study plan will be drawn up for each research student, including the structure of the studies as well as their financing. The individual study plan is drawn up by the doctoral student and the supervisor, in consultation with the Head of Department. The plan is to be approved by the Head of Department and is to be reviewed at least once a year.

##### 4.3 Supervision

Each doctoral student is to have at least two supervisors, of which at least one must have training as a supervisor.

A doctoral student admitted to licentiate studies is entitled to supervision for the equivalent of two years of full-time study or four years from the date of admission. Supervision encompasses assistance in determining the focus of the studies and thesis, as well as assistance during the work. Entitlement to supervision for more than two years (full-time studies) or four years from the date of admission to the programme is on condition that the doctoral student studies actively and works in accordance with the individual study plan.

#### 4.4 Licentiate thesis

The licentiate thesis is the most important component of the third-cycle programme for the degree of Licentiate and should be based on independent research. The thesis must demonstrate the doctoral student's ability to use research methods and to present issues and findings in a precise manner that answers to the purpose.

The licentiate thesis must be publicly defended. The thesis is awarded the grade *Pass* or *Fail*. The grade is based on the contents of the thesis, as well as on the public defence.

The thesis is to be assessed by a reviewer and a grading committee. The grading committee is to consist of three members of whom at least one must have the qualifications of a Reader.

### **5 Tuition and examination**

Tuition is provided in the form of lectures and seminars. At the end of each semester information will be provided about the courses offered by the department during the next semester. Additional information is provided about courses in other disciplines that may be included in the course component.

Doctoral students with teaching duties should attend at least two weeks of the University's teacher training and all doctoral students shall be offered the opportunity to take courses in teaching and learning in higher education.

Assessment is based on oral or written examinations, or through research papers and reports. Examinations are held during or in connection with the courses and the grades *Pass* or *Fail* are awarded.

In addition to courses, public seminars, research seminars and guest lectures will be held, in which the doctoral student is expected to actively participate.

For a degree of Licentiate the student must have completed and passed the courses included in the degree programme, as well as receiving a *Pass* on his or her thesis.

Further information regarding the thesis, public defence and grading committee is available in Instructions for Third-Cycle Studies at the School of Economics and Management, reg. no EHL 2007/66.