

## Doctoral Studies at Jönköping International Business School

### Curriculum for the doctoral programme in Informatics

#### 1. Aims and study objectives

Doctoral studies at Jönköping International Business School (JIBS) aim at providing students with theoretical and methodological instruction within the subject as well as proficiency in pursuing research of one's own, especially within the profile areas at JIBS. The studies shall form a solid foundation for an academic career and for qualified work within other areas of the labour market. The studies shall result in knowledge that is relevant for scholarship, for practice within trade and industry, and for society in general. The doctoral thesis shall provide a scholarly contribution of its own. The studies shall have a strong international orientation.

For general objectives see *Regulations and guidelines for education at Jönköping University*.

#### 2. Requirements and admission

##### 2.1 Requirements

Basic requirements for admission to doctoral studies (education at third level) at Jönköping International Business School, is a passed exam at the advanced (masters/second) level and fulfilled course requirements of at least 240 credit points (ects credits), 60 of which should be at the advanced level, or equivalent competences acquired in some other way within or outside Sweden. Requirements also include a Bachelor degree, consisting of at least 90 credit points (ects credits, 3 terms) in Informatics– or equivalent education.

Students admitted to the programmes based on a degree finished before the end of 2009 must hold at least a university degree corresponding to a Bachelor's degree with a major in Informatics or its equivalent, i.e. 120 credit points (ects credits) with 60 credit points (ects credits) in Informatics (this corresponds to three years of full time study at University level, half of which should be dedicated to business studies).

In addition, the applicant must also be assessed as having the general capacity to successfully complete the programme. The doctoral programme in Informatics is conducted in English.

##### 2.2 Admission

Admission to doctoral studies at Jönköping International Business School is restricted. Applicants will be assessed and selected based on previous academic merits, experience, judged suitability, areas of research interest and the expected capability to successfully complete studies within the intended time.

Applicants shall send in attested documents reflecting formal academic merits and work experience. Applications should include a copy of the Bachelor's and/or Master's thesis, a biography and a "letter of intent" (with the candidate's motives for application, expectations for the studies and areas of research interest). The Research Faculty Board at Jönköping International Business School determines the admission based on a proposal from the prospective main supervisor and department head.

Upon admission the Research Faculty Board will approve any credit to be awarded for previous coursework, as well as decide what consequences these awarded credits will have for the contract with the admitted student. Credits can be awarded for doctoral courses taken at other universities as well as for advanced (second) level courses deemed equivalent to doctoral courses.

#### 3. Structure and Content of the Programme

Doctoral studies comprise a total of 240 credit points [120 credits for the licentiate exam, respectively], 90 [45] credit points of coursework and 150 [75] credit points for the doctoral thesis [licentiate thesis], which normally requires four [two] years (48 months) of full-time study.



3.1 Coursework and seminars Coursework for doctoral studies in Informatics include compulsory courses as well as broadening and/or deepening elective courses.

The compulsory courses for both the licentiate and doctoral degree are

- Philosophy of Science and Research Ethics (7,5 credit points/ects credits),
- Scientific Method: Qualitative (7,5 credit points/ects credits).
- Informatics and Information Systems (7,5 credit points(ects credits)
- Aspects of Scientific writing

For the doctoral degree the following course is also required:

- Evaluation of IT/IS: methods and models (7,5 credit points/ects credits),
- Scientific Method: Quantitative (7,5 credit points/ects credits).

Elective courses aim at broad and in-depth knowledge and reflect areas of research at JIBS. Of the elective credits, a maximum of 7,5 credit points can be given for scientific project work.

The compulsory postgraduate courses should be offered at JIBS. In addition, JIBS offers a number of elective courses each academic year, e.g. courses within the specific profile areas. Candidates may also increase their selection of elective courses by taking advantage of doctoral courses at other universities. A course examiner for a doctoral course at JIBS needs to be at least a reader/docent.

A doctoral student is required and expected to participate in research seminars given at JIBS, including research proposal seminars and regular research seminars. The doctoral student is also required to act as opponent at another doctoral students' research proposal seminar and is expected to present his or her own work at different seminars and conferences throughout the doctoral programme. It is compulsory for the doctoral student to give at least two different presentations at seminars, i.e. the research proposal seminar and the final seminar.

Doctoral students are encouraged to spend part of their studies (normally one term) at another university in order to take postgraduate courses and/or work with their thesis.

3.2 Dissertation work The doctoral thesis comprises 150 credit points/ects credits. The student shall prepare the thesis individually. The thesis could either have the form of a compilation of articles, (see separate document for detailed requirements), or take the form of a monograph.

The Licentiate thesis comprises 60 credit points/ects credits. The student shall prepare the thesis individually. It can have the form of a monograph or a compilation of articles.

The thesis is written in English unless there are particular reasons for it to be written in Swedish or some other language.

3.3 Supervisors Upon enrolment to the programme, the doctoral student is appointed a main supervisor and an assistant supervisor within the subject area. The main supervisor must be an associate professor (docent/reader) or a full professor, and the assistant supervisor must have a doctoral degree. These supervisors form the preliminary dissertation committee until the research proposal has been presented.

The appointed supervisor may be changed upon request from the doctoral student or the supervisor, or for other reasons.



- 3.4 Individual study plan and contracts For each doctoral student an individual study plan is constructed in cooperation between the doctoral student and his or her supervisors'. Doctoral students' performance is evaluated yearly and the doctoral student's contract is renewed on the condition that the candidate is making progress with his/her studies and thesis in accordance with the individual study plan. The doctoral student shall keep the supervisors informed on a continuous basis of the progress of the work on the thesis and other studies in relation to the individual syllabus and in accordance with the supervisor's instructions.
- Employment as a doctoral student can be held for the equivalence of four year (48 months) of full time studies. A pause in the thesis work can be granted for up to one year to allow participation in other research projects at JIBS. Teaching is in general included in the doctoral education. The maximum amount of teaching per calendar year is 20 % of the candidate's working-hours.
- Doctoral students can also be admitted without holding a formal employment at JIBS. In this case, the rights and responsibilities are stipulated in separate contracts.
- 3.5 Expectations of the doctoral student Accepted doctoral students are expected to take an active part in the life of the organisation.
- Any suspected deviations from the individual study plan should be brought to the attention of the supervisor as soon as they are detected. The doctoral student should keep the supervisor informed on a continual basis as to the progression of the thesis and additional studies. In the case of inadequate candidate performance, the JIBS Research Faculty Board determines what measures are to be taken. If there are serious deficiencies, the decision can be made not to renew the doctoral appointment (even if the four years has not been completely used). Such decisions are made by the Research Faculty Board.
- 4. Rights of the doctoral student** For a favourable and efficient study process, the doctoral student has the right to expect:
- clear and consistently expressed expectations and rights
  - conditions which provide the necessary time allowance and means to complete the research process within the allotted time
  - that the internal selection of courses and resources for attending courses at other institutions provide adequate opportunity to fulfil the required coursework within the allotted time
  - competent and committed supervision, through advice and directions regarding choice of courses as well as content, planning and completion of the thesis
  - assistance with external financing of the thesis project
  - support and encouragement for international research experience with regards to both participation in research conferences and study abroad
  - support and feed back at seminars and in course work assignments
  - support concerning the writing of scholarly texts in English
  - treatment of the research proposal as well as drafts and manuscripts for research seminars without undue delay.
- 5. Examination requirements** The doctoral [licentiate] degree requires passing marks for the required postgraduate courses, a approved doctoral thesis [licentiate thesis] and a public defence of one's thesis [seminar]. The credit points of coursework refer to postgraduate courses as outlined above plus any previous courses that are credited upon enrolment to the programme.
- The degree awarded is *Filosofie doktor* or *Doctor of Philosophy in Informatics* and *Filosofie Licentiate* or *Licentiate of Science in Informatics*.
- 5.1 Defence of the There is a preliminary examination of the manuscript for the doctoral thesis at an internal



Doctoral Thesis research seminar (final seminar) and through a written statement by an external assessor (with the expertise equivalent to reader/docent or professor). After approval of the external assessor and the supervisors are granted, JIBS sends in a written and signed form to the *Board of Education and Research Education (NUF)* suggesting a date for the defence of the thesis, an opponent, an examining committee and a chairperson (often the main supervisor). The announcement of the thesis defence to NUF should be made at least two months before the proposed public defence.

The candidate and JIBS must follow the specific directions as outlined in *Regulations and guidelines for first, second and third level education at Jönköping University*.

The faculty opponent must be a recognised researcher with experience from the area of research in question. The examining committee is normally comprised of three members, of whom the majority should belong to the faculty of other universities. The examining committee can under special circumstances number up to five persons, but an external majority must still exist. Both the opponent and the members of the examining committee should have the expertise equivalent to reader/docent or professor.

The examining committee appoints one member to be the chairperson for committee discussions. Both the opponent and the supervisor have the right to be present and express themselves at such meetings. However, they do not have the right to take part in the decision-making of these discussions.

The grade of the thesis is set by the examining committee, in which the majority opinion constitutes the decision of the committee. The grade of pass or fail shall be recorded together with a written motivation, including a summarised assessment of the thesis and of the public defence. Jönköping University award the doctoral degree.

5.2 The Licentiate Seminar defence The manuscript for the licentiate thesis is examined at an internal research seminar. Based on a proposal from the supervisor, the JIBS RFB makes a decision about the licentiate seminar defence. The specific directions as outlined in *Regulations and guidelines for first, second and third level education at Jönköping University* should be followed.

JIBS announce the licentiate seminar to the NUF in writing. This announcement should be made at least four weeks before the proposed public defence. The announcement should contain information about the proposed opponent, the chairperson at the seminar (normally the main supervisor), the third member of the examining committee (please see below) and the time and place of the seminar.

The faculty opponent should be a recognised researcher with experience from the area of research in question. The examining committee is comprised of three members; the main tutor, the faculty opponent and an additional member with the qualifications of reader/docent or professor. The examining committee meets directly after the licentiate seminar. The main supervisor serves as chairperson of the committee. The examining committee, in which the majority opinion constitutes the decision of the committee, grades the licentiate thesis. The grade of pass or fail shall be recorded together with a written motivation. JIBS awards the licentiate degree.

**6. Additional information** See the *Regulations and guidelines for education at Jönköping University* decided on by the *Board of Education and Research Education* at HJ for more information about the rules and regulations of the doctoral programmes at Jönköping University.