



GENERAL CURRICULUM FOR EDUCATION AT POST-GRADUATE LEVEL IN HISTORY OF TECHNOLOGY

TFN Chair, 2007-09-10

1 Subject area

History of Technology is concerned with the interplay between the technological, economic and social changes throughout history; both how technology has impacted on humans and society and how humans have

2 Programme curriculum

Education at post-graduate level in History of Technology that concludes with a licentiate degree comprises a total of two years' full time study (120 higher education credits) and consists of a study programme that gives 45 higher education credits and a licentiate thesis that gives 75 higher education credits.

Education at post-graduate level in History of Technology that concludes with a doctorate comprises a total of four years' full time study (240 higher education credits) and consists of a study programme that gives 90 higher education credits and a doctoral thesis that gives 150 higher education credits.

Degree objective: "Knowledge and understanding"

The aim of the education for a licentiate degree shall be that the student will build up good knowledge and understanding of the field of research as such and current specialised knowledge in that part of the field that will constitute the specific field of research. This shall be achieved by the post-graduate student pursuing and being examined in courses given at both the student's own department and other departments and, where applicable, also courses given at other institutions of higher education. Knowledge and understanding will also be acquired in the work that will lead to the written licentiate thesis.

The objectives for a doctor's degree are that the post-graduate student

- demonstrate broad knowledge in and a systematic understanding of the field of research and deep, current, specialised knowledge within a delimited part of the field of research and
- demonstrate familiarity with academic methodology in general and with the specific field of research's methods in particular.

In order to achieve these objectives, the post-graduate student shall participate in and be examined in courses that provide advanced knowledge and deeper understanding of current developments in the area of specialisation as regards both the build-up of knowledge and theoretical and methodological development.

Degree objective: "Aptitudes and Accomplishments"



For the education for a licentiate degree, the degree objective means that the post-graduate student after graduation shall

- demonstrate ability to identify and formulate issues critically, independently and creatively with scientific accuracy; plan and carry out limited research work and other qualified tasks within given time frames and using appropriate methods, and thus contribute to the development of knowledge; and evaluate this work.
- demonstrate ability, in both national and international contexts, orally and in writing, to present and discuss clearly research and research findings in dialogue with the scientific community and the rest of society and
- demonstrate such ability as is required to participate independently in research and development work and work independently in other qualified areas.

In order to achieve these objectives, the post-graduate student shall participate in a higher seminar as an active member, as opponent and in the role of respondent. The post-graduate student shall also participate in the work of applying for research funding and also independently draw up such applications. In order to achieve these objectives, the post-graduate shall participate with his or her own papers at both national and international conferences.

For the education for a doctor's degree, the degree objective means that the post-graduate student after graduation shall

- demonstrate the ability to analyse and synthesise scientifically and perform independent critical reviews and assessments of new complex phenomena, issues and situations
- demonstrate ability to identify and formulate issues critically, independently and creatively with scientific accuracy; plan and carry out limited research work and other qualified tasks within given time frames and using appropriate methods; and evaluate such work
- in an academic thesis, demonstrate ability to contribute substantially to the development of knowledge through his or her own research
- demonstrate ability, in both national and international contexts, orally and in writing, to present and discuss clearly research and research findings in dialogue with the scientific community and the rest of society
- demonstrate ability to identify any need for further knowledge and
- demonstrate prerequisites, both in research and education and in other qualified professional contexts, to contribute to the development of society and support others' learning.

In order to give the student the opportunity to achieve these objectives, he or she will

- participate continuously in seminars, participating as both opponent and respondent in respect of his or her own sections of text from what is to become the doctoral thesis that is the aim of the education
- participate with his or her own papers at both national and international conferences
- contribute to applications for research funding and also independently apply for such funding
- communicate ongoing research and research findings to society at conferences and through popular science lectures and articles.



An individual study programme is drawn up for every post-graduate student (according to a fixed [model](#)) where the study programme is specified in detail. The individual study programme is followed up at least once a year by the post-graduate student and his/her supervisor and is then approved by the head of department, as delegated by the faculty board.



3 Eligibility and selection

3.1 General eligibility requirements

As specified in [Section 41 of Chapter 7 of the Higher Education Ordinance](#) and the local guidelines laid down in the [Admission Rules for Post-graduate Education at Luleå University of Technology](#).

3.2 Specific eligibility requirements

Very good skills in oral and written communication in Swedish and English.

3.3 Selection

As specified in [Section 41 of Chapter 7 of the Higher Education Ordinance](#) and the local guidelines laid down in the [Admission Rules for Post-graduate Education at Luleå University of Technology](#).

4 Examinations included in the education

The education consists of courses and an academic thesis. Examinations included in post-graduate 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

Compulsory courses: Theory of Science, Introduction to History of Technology, Sustainable Development and Society's Political, Financial and Judicial Institutions, and a theory and method course.

Goal attainment is tested by means of the form of examination specified in the syllabus.

4.1.1 Recognition of prior studies

As specified in the local guidelines laid down in the [Admission Rules for Post-graduate Education at Luleå University of Technology](#).

4.2 Academic thesis

An academic project in the form of a dissertation/thesis in History of Technology shall be presented as a homogenous, cohesive academic work (monograph) or a brief summary – comprehensive summary – of academic essays (composite thesis) that the post-graduate student has written alone or together with another person or persons.

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 a licentiate thesis is decided by an [examiner](#) appointed 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. The grade of a doctoral thesis is decided by a [grading committee](#) that is appointed for each thesis.

5 Degree

In History of Technology, a post-graduate student who has been admitted to a doctorate has the possibility to take a licentiate degree after completing a portion giving at least 120 higher education credits of the education that will be concluded with a doctorate.

5.1 Degree objectives

As specified in the [degree description](#) (Higher Education Ordinance, Appendix 2 – Degree Ordinance. See also the appendix below.

5.2 Degree title

A post-graduate student who takes a licentiate degree in History of Technology receives the degree title of Licentiate in Philosophy.

A post-graduate student who takes a doctorate in History of Technology normally receives the degree title of Doctor of Philosophy.

Requests for another degree title are made according to established [guidelines](#).

6 Entry into effect and interim regulations

The previous general curriculum will cease to apply for post-graduate students who are admitted to education at post-graduate level after 1 July 2007. Post-graduate students admitted before this date may choose to either follow the previous curriculum or transfer to the present curriculum.



Qualifications ordinance (Higher Education Ordinance, Annex 2) Contents

the qualifications that may be awarded in the third cycles, and the requirements to be fulfilled for the award of each qualification (qualification descriptors).

THIRD-CYCLE QUALIFICATIONS

General qualifications

Degree of Licentiate [Licentiatexamen]

Scope

A Degree of Licentiate is awarded

either after a third-cycle student has completed a study programme of at least 120 credits in a subject in which third-cycle teaching is offered,

or after a third-cycle student has completed one part comprising at least 120 credits of a study programme intended to conclude with the award of a PhD, if a higher education institution decides that a licentiate of this kind may be awarded at the institution.

Outcomes

Knowledge and understanding

For a Degree of Licentiate 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.

Competence and skills

For a Degree of Licentiate the third-cycle student shall have:

- demonstrate the ability 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 ability 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.

Judgement and approach

For a Degree of Licentiate the third-cycle student shall

- demonstrate the ability to make assessments of ethical aspects of his or her own research
- demonstrate 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 the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning.

Thesis

For a Degree of Licentiate the third-cycle student shall have been awarded a pass grade for a research thesis of at least 60 credits.

Miscellaneous



Specific requirements determined by each higher education institution itself within the parameters of the requirements laid down in this qualification descriptor shall also apply for a Degree of Licentiate with a defined specialisation.

Degree of Doctor

Scope

A Degree of Doctor is awarded after the third-cycle student has completed a study programme of at least 240 credits in a subject in which third-cycle teaching is offered.

Outcomes

Knowledge and understanding

For the Degree of Doctor the third-cycle student shall

- demonstrate broad knowledge and systematic understanding of the research field as well as advanced and up-to-date specialised knowledge in a limited area of this field, and
- demonstrate familiarity with research methodology in general and the methods of the specific field of research in particular.
- 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
- 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.

Judgement and approach

For the Degree of Doctor 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.

Research thesis (doctoral thesis)

For the Degree of Doctor the third-cycle student shall have been awarded a pass grade for a research thesis (doctoral thesis) of at least 120 credits.

Miscellaneous

Specific requirements determined by each higher education institution itself within the parameters of the requirements laid down in this qualification descriptor shall also apply for a Degree of Doctor with a defined specialisation. Ordinance (2008:132)