CHALMERS

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Local Qualifications Framework for Chalmers University of Technology

third-cycle qualifications

Policy document at Chalmers

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1. Introduction

The Local Qualifications Framework for Chalmers University of Technology ("Chalmers") for third-cycle qualifications is based on the Act (1993:792) concerning authority to award certain qualifications in the third-cycle, with effect from 1 July 2007. The Act (1993:792) concerning authority to award certain qualifications states that the education shall follow requirements of education stipulated in Chapter 1 of the Swedish Higher Education Act (1992:1434) and in the National Qualifications Ordinance, Annex 2 of the Higher Education Ordinance (1993:100). The qualification descriptors above are presented in this local qualification framework per qualification together with the complimentary local requirements (qualifications descriptors) which have been decided by Chalmers University of Technology.

On 28 June 2007, the Government decided that with effect from 1 July 2007 Chalmers will be entitled to award the qualifications specified in this local qualifications framework (Government decisions U2006/9375/UH, U2007/4718/UH).

The official language of communication at Chalmers is Swedish and this English version of the approved policy document is merely a translation. In the event of differences between the qualification's framework in Swedish and the translation in English, the approved qualifications framework in Swedish shall take precedence.

| Compilation | | | | |
|----------------|---------|---|--|--|
| Date | Version | Description | | |
| 20 May 2022 | 1.1 | Decisions incorporated into the current version: C 2021-0462 Chalmers appointment regulation for doctoral programmes C 2021-1542 Decisions on changed course offerings within GTS – Generic Transferable Skills New sections and additions: Third-cycle subject areas | | |
| | | Overall clarification of local qualifications descriptors | | |

2. Third-Cycle Qualifications awarded by Chalmers and their third-cycle subject areas

Third-cycle qualifications

Degree of Licentiate
Degree of Doctor of Philosophy

Third-cycle subject areas

Applied Acoustics Applied Mathematics and Mathematical Statistics Applied Mathematics and Statistics Architecture

Bioscience

Chemical Engineering

Chemistry

Civil and Environmental Engineering

Communication and Learning in STEM

Complex Systems

Computer Science and Engineering

Electrical Engineering

Energy and Environment

Energy, Environment and Systems

High Voltage Engineering

Human – Technology – Design

Human-Computer Interaction

Machine and Vehicle Systems

Manufacturing Technology

Materials Science

Mathematics

Mathematical Statistics

Microtechnology and Nanoscience

Nuclear Engineering

Physics

Product and Production Development

Radio and Space Science

Shipping and Marine Technology

Signals and Systems

Solid and Structural Mechanics

Technology Management and Economics

Thermo and Fluid Dynamics

3. Degree certificates

Students who satisfy the requirements for a third-cycle qualification are entitled to a degree certificate upon application. The date of issuance and the date when the qualification requirements were satisfied are stated on the degree certificate. Degree certificates are bilingual and issued in Swedish and English. Credited courses in the degree certificate can be stated in other languages than Swedish and English.

Since 1 January 2007, all third-cycle degree certificates issued by Chalmers are accompanied by a Diploma Supplement. Diploma Supplements describe the programme and where it fits into the Swedish educational system. Diploma Supplements are intended to facilitate recognition and transfer of a Swedish qualification to make it easier for those with academic qualifications to study or work in other countries.

The degree certificate is a valuable document and is issued only in one original. Only a person who has been granted protected identity or has changed his or her legal gender identity and proves this with an affidavit from the Swedish Tax Agency verifying the change is entitled to receive a new degree certificate for a previously awarded qualification.

4. Grades and scope of education

Courses included in the qualification must be completed with a final grade. A completed course refers to a course for which the student has taken a final examination with a minimum grade of Pass. The grade is given by an examiner appointed by the University. No overall grade is given for the qualification earned. Target-related grading scales are used in Sweden, which means that students are not ranked.

The scope of the course or programme is indicated in credits. Sixty credits correspond to one academic year of full-time study.

5. Overlapping content

Courses whose content partially or entirely overlaps with one or more other courses may not be simultaneously included within the framework of a single qualification.

6. Credit transfer

Credits can be transferred for an entire course or part of a course. Courses with overlapping content may not be simultaneously included in the qualification.

7. Double Doctoral degree

Chalmers and certain external higher education institutions are parties to collaborative agreements whose programme syllabus leads to a double doctoral degree. These collaborative agreements take precedence over the local qualifications in the framework.

After approved studies under the agreement, the student has the right to apply for two separate doctoral degrees, one from Chalmers and one from the partner institution, with the same courses included. Credits for courses studied at the partner university can, after evaluation, be transferred.

8. Transitional provisions

8.1. National transitional provisions

National transitional provisions corresponding to the Higher Education Ordinance (1993:100) apply at Chalmers regarding the sections below.

Ordinance 2006:1053

- 1. This ordinance enters into effect [-] on 1 January 2007 [-].
- 5. A person who has started an educational programme leading to a qualification under the older provisions in the National Qualifications Ordinance, Annex 2 of the Higher Education Ordinance (1993:100) before 1 July 2007 and a person who has been admitted to such a programme before that date but was granted deferment until a time after that date is entitled to complete her or his education and obtain a qualification under the older provisions before the end of June 2015.

- 6. One credit defining the scope of first, second, or third-cycle education before 1 July 2007 is equivalent to one and a half credits under the new provisions.
- 8. The expression "third-cycle education" in the new provisions corresponds to that called "postgraduate education" in the older provisions.

8.2. Local transitional provisions

At Chalmers, in addition to the above National transitional provisions, the Local transitional provisions as set forth also apply.

A person who commenced his or her education before 1 July 2007 and wishes to complete the education must satisfy the requirements under the National Qualifications Ordinance, Annex 2 of the Higher Education Ordinance (1993:100) and the local Qualifications Framework in effect at the current time.

9. Appeals

A decision to reject a student's request for a degree certificate or course certificate may be appealed against as set forth in Chalmers appointment regulation for doctoral programmes. The appeal shall be in writing and reach the registrar within three weeks of the date the decision was notified.

10. Qualification descriptors for third-cycle qualifications

10.1. Degree of Licentiate

Scope

A Degree of Licentiate is awarded 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.

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

- 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.

10.1.1. Local requirements for the Degree of Licentiate of Engineering effective third-cycle students admitted until 31 August 2012

To be awarded a Degree of Licentiate of Engineering at Chalmers the student shall, together with the above mentioned requirements, see 10.1., also fulfil the local requirements below:

- Have completed the requirements and attained the outcomes stated for the Degree of Licentiate of Engineering in the general study plan of each respective graduate school,
- Participated at the introductory day for third-cycle students,
- One course in a pedagogy of a total of 3 credits, and
- One course in ethics of a total of 3 credits.

In case of deviations from Chalmers' local requirements a decision on exemption is required.

10.1.2. Local requirements for the Degree of Licentiate of Engineering effective third-cycle students admitted from 1 September 2012

To be awarded a Degree of Licentiate of Engineering at Chalmers the student shall, together with the above mentioned requirements, see 10.1., also fulfil the local requirements below:

- Have completed the requirements and attained the outcomes stated for the Degree of Licentiate of Engineering in the general study plan of each respective graduate school.

In case of deviations from Chalmers' local requirements a decision on exemption is required.

10.1.3. Title of qualification

The title of the qualification is Teknologie licentiatexamen. The English translation of the title of the qualification is Degree of Licentiate of Engineering. The degree is given a title corresponding to the name of the faculty within which the undergraduate degree was earned. In certain individual cases another designation than Teknologie or the designation that corresponds to the faculty where the foundation qualification was earned can be used. Such a decision shall consider the focus of the doctoral student's studies at the first cycle (undergraduate) and second cycle (graduate) level or background in the subject area, as well as the focus of their doctoral education at Chalmers. The title is determined by the Head of Department in connection with admission. Any decision regarding exemption from use of the defined title is made by the Head of Department.

The degree certificate states the third-cycle subject area which the degree comprises.

10.2. Degree of Doctor of Philosophy (PhD) Scope

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

Outcomes

Knowledge and understanding

For a 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.

Competence and skills

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

- demonstrate the capacity for scholarly analysis and synthesis as well as 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 a 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.

10.2.1. Local requirements for the Degree of Doctor of Philosophy effective third-cycle students admitted until 31 August 2012

To be awarded a Degree of Doctor of Philosophy at Chalmers the student shall, together with the above mentioned requirements, see 10.2., also fulfil the local requirements below:

- Have completed the requirements and attained the outcomes stated for the Degree of Doctor of Philosophy in the general study plan of each respective Graduate School,
- One introductory day for third-cycle students,
- One course in a pedagogy of a total of 3 credits, and
- One course in ethics of a total of 3 credits.

In case of deviations from Chalmers' local requirements a decision on exemption is required.

10.2.2. Local requirements for the Degree of Doctor of Philosophy effective third-cycle students admitted from 1 September 2012 until 31 July 2022

To be awarded a Degree of Doctor of Philosophy at Chalmers the student shall, together with the above mentioned requirements, see 10.2., also fulfil the local requirements below:

- Have completed the requirements and attained the outcomes stated for the Degree of Doctor of Philosophy in the general study plan of each respective Graduate School,
- Have completed all requirements for the Degree of Licentiate of Engineering with exception of the licentiate thesis. If a Licentiate Degree has not been earned, a midway seminar should have been held, and
- Have completed the following compulsory courses within Generic and Transferable Skills (GTS) of 7,5 credits:
 - Career planning of 1,5 credits,
 - o Teaching, learning and evaluation of 3 credits,
 - Sustainable development: values, technology in society, and the researcher of 3 credits, and
 - o A popular science presentation.

The above mentioned course package expires on 31 December 2023. Doctoral students can fulfill the GTS-requirement according to 10.2.3. In these cases a decision of transfer made by the Head of Department shall be registered.

In case of deviations from Chalmers' local requirements a decision on exemption is required.

10.2.3. Local requirements for the Degree of Doctor of Philosophy effective third-cycle students admitted from 1 August 2022

To be awarded a Degree of Doctor of Philosophy at Chalmers the student shall, together with the above mentioned requirements, see 10.2., also fulfil the local requirements below:

- Have completed the requirements and attained the outcomes stated for the Degree of Doctor of Philosophy in the general study plan of each respective Graduate School,
- Have completed all requirements for the Degree of Licentiate of Engineering with exception of the licentiate thesis. If a Licentiate Degree has not been earned, a midway seminar should have been held, and
- Have completed compulsory courses in Generic and Transferable Skills (GTS) of 7,5 credits, within the area of Theory of science, Ethics, Academic writing and Pedagogy including a popular science presentation.

10.2.4. Title of qualification

The title of the qualification is Teknologie doktorsexamen. The English translation of the title of the qualification is Degree of Doctor of Philosophy (PhD). The degree is given a title corresponding to the name of the faculty within which the undergraduate degree was earned. In certain individual cases another designation than Teknologie or the designation that corresponds to the faculty where the foundation qualification was earned can be used. Such a decision shall consider the focus of the doctoral student's studies at the first cycle (undergraduate) and second cycle (graduate) level or background in the subject area, as well as the focus of their doctoral education at Chalmers. The title is determined by the Head of Department in connection with admission. Any decision regarding exemption from use of the defined title is made by the Head of Department.

The degree certificate states the third-cycle subject area which the degree comprises.

| 11. Validity of the document: |
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| This policy document is valid from 20 May 2022 until further notice. |