

# General syllabus for doctoral (third-cycle) studies in Design at Luleå University of Technology

Decided by the Chair of TFN 20 April 2022.

#### 1. Subject description

English name: Design

Design encompasses scientific and artistic issues concerning sustainable design of technology, communication, services, environments and systems based on the conditions and challenges of the individual and society.

## 2. The purpose and learning objectives of the education

The purpose of the doctoral program in Design at LTU is to provide the doctoral student with in-depth knowledge in the subject area, a thorough knowledge of different research methods and good insights into the challenges that occur in research and its practical application. The overall goal of the education is to make the research student a critical and independent researcher in Design with the ability to plan and implement research projects. The doctoral student must fulfill all of the degree objectives set out in the Higher Education Ordinance and, when there are any, locally determined degree objectives (see attached Appendix A).

#### 3. Eligibility and selection

## 3.1 Basic eligibility

An applicant meets the general entry requirements for doctoral (third cycle) studies if she or he has been awarded a Master's (second cycle) qualification, has satisfied the requirements for courses comprising at least 240 credits, of which at least 60 second-cycle credits at advanced level, or has acquired substantially equivalent knowledge in some other way, Higher Education Ordinance chap. 7:39 (SFS 2010: 1064).

#### 3.2 Special competence

In addition to the requirement for basic qualifications, admission to doctoral studies in Design requires knowledge within Design, or within an adjacent area.

In addition to the basic qualifications, admission to doctoral studies further requires professional experience within the field.

#### 3.3 Selection

In selecting among applicants who meet the requirements, their ability to benefit from the course or the study program should be taken into account. However, the mere fact that an applicant may be credited for previous courses and study programmes or for professional or vocational experience may not alone give the applicant priority over other applicants, the



Higher Education Ordinance, Chapter 7:41 (SFS 2010: 1064). The University's local guidelines in the admission procedure for postgraduate education must also be applied.

When selecting for postgraduate education in Design, the following selection criteria apply:

- 1. Knowledge relevant to the project and the research subject Design, which can be shown, for example, through attached documents, interviews and portfolios,
- 2. Assessed ability to work independently and ability to formulate and handle research challenges. Assessment can be made, for example, on the basis of quality in previous work, interview and portfolio,
- 3. Personal qualities that are relevant for doctoral (third-cycle) studies,
- 4. Good knowledge in verbal and written communication in English,
- 5. Other relevant experiences for the doctoral program, for example documented professional experience with relevance to the subject area Design.

#### 4. The degree

The doctoral (third-cycle) studies lead to a Degree of Doctor. Within Design, a student who is admitted to doctoral studies has the right to be awarded a licentiate degree after a part of at least 120 credits of the programme leading to a Degree of Doctor.

#### 4.1 Degree requirements

For a Degree of Doctor, the doctoral student shall

- Have been awarded a pass grade for courses of at least 60 credits.
- Have been awarded a pass grade for a research thesis (doctoral thesis) of at least 165 credits

The thesis and the courses shall together comprise 240 higher education credits for a Degree of Doctor.

For a Degree of Licentiate, the doctoral student shall

- Have been awarded a pass grade for courses of at least 30 credits.
- Have been awarded a pass grade for a research thesis (doctoral thesis) of at least 90 credits

The thesis and courses must together comprise 120 higher education credits for the licentiate degree.

#### 4.2 Titles of degree

- A doctoral student who completes a Degree of Doctor in Design is awarded the title Doctor of Philosophy in Science
- A doctoral student who completes a Degree of Licentiate in Design is awarded the title Licentiate of Science

A request of a title of degree other than the stipulated may be submitted in accordance with laid down guidelines.



#### 5. Programme structure and implementation

#### 5.1 Programme scope and structure

The doctoral (third-cycle) programme includes two blocs; courses and thesis work. The programme comprises four years (two years for the licentiate degree). In case the doctoral student has a doctoral studentship and carries out departmental duties to a certain extent (no more than 20% of the whole programme), a corresponding prolonged period may be approved.

### 5.2 Individual study plan and supervision

An individual study plan outlining the implementation of the studies is drawn up for each doctoral student. The plan is drawn up in consultation with the supervisor and is approved by the Head of the Department by delegation of the Vice-Chancellor. The plan is reviewed and revised at least once a year.

The Head of Department shall appoint at least two supervisors, one of whom is appointed principal supervisor, for each doctoral student. The person appointed principal supervisor shall have at least qualifications required for appointment as a docent and be employed by the University. A principal supervisor who no longer meets the job requirements may continue as supervisor until the doctoral student completes his or her studies, by an individual agreement with the relevant department. The doctoral student is entitled to supervision during the studies, unless the Vice-Chancellor has decided otherwise in accordance with the Higher Education Ordinance (2010:1064) Chapter 6 Section 30. A doctoral student who so requests may have another supervisor (Higher Education Ordinance (2010:1064) Chapter 6 Section 28). The request does not need a justification.

#### 5.3 Courses

The individual study plan shall specify the courses to be included in the doctoral student's education. Goal attainment is examined according to the examination procedure specified in the course syllabus. Credits may be transferred in accordance with the local guidelines in the Admissions procedure for doctoral (third-cycle) studies.

The course part is divided into three blocks, where the content is reviewed annually and updated when needed. With regard to the doctoral student's prior knowledge, research focus and interests, the course part is designed in consultation between supervisors and doctoral students.

- i. Specialization in the research subject area and the chosen research specialization (at least 15 credits to lic, at least 22.5 credits to doctor). Includes courses that contribute to an in-depth understanding of the research topic and focus, as well as the ability to develop independence and scientificity in the work.
- ii. Research methodology, theory of science and research ethics or equivalent (at least 15 credits to lic, at least 22.5 credits to doctor). Includes courses in general research methods, as well as methods and ethical issues in the design subject in particular.



iii. Broadening: includes courses in, for example, technology, natural sciences, social sciences, behavioral sciences, humanities, art, economics, pedagogy or other relevant areas that contribute to the goals of the doctoral program being met.

For both licentiate and doctoral degrees, knowledge of gender and gender equality must be included in at least one of the courses.

#### 5.4 Thesis

The thesis may take the form of either a single coherent work (a monographic thesis) or a compilation comprising a number of scientific articles interrelated by an introductory summary chapter (a compilation thesis). Quality and scope requirements for the research activities do not differ between the two alternatives. The scientific articles or, as appropriate, the monograph must be of such quality that they meet reasonable requirements for publication in a peer–reviewed scientific forum.

For the licentiate degree, a summary dissertation must, in addition to a summary chapter, contain scientific sub-projects (normally two), in which the doctoral student must have contributed significant parts.

For a doctoral degree, a summary dissertation must, in addition to a summary coat, contain scientific sub-projects (normally four), in which the doctoral student must have contributed to significant parts.

The introductory summary chapter shall include a separate section describing the doctoral student's contribution to the articles.

The scientific results, in addition to being published in, for example, scientific journals, can be developed and communicated in other forms and media, for example visual essays, artefacts and exhibitions. For such cases, documentation and discussion about method and results with supervisors and also chaired professor is of the utmost importance.

In the case of co-authored sub-projects, a special section in the framework report shall be devoted to describing the doctoral student's contribution to the work.

The doctoral thesis shall be defended at a public defence seminar. The grades for the thesis are either 'pass' or 'failed'. When grading the thesis, the content and the defence of thesis shall be taken into account. The grade of a doctoral thesis is decided by an examining committee, appointed anew for each thesis.

A doctoral student wanting to be awarded a Degree of Licentiate shall, after consultation with his or her supervisor, request approval from the responsible Head of Department. The doctoral student defends his or her licentiate thesis at a licentiate seminar after which the thesis is graded 'pass' or 'failed'. When grading the thesis, the content and the defence of the thesis is taken into account. An examiner, appointed by the Head of Department, grades the licentiate thesis.



In cases where the doctoral student refrains from writing a licentiate thesis, a public 50% seminar with an external examiner shall instead be conducted after 120 credits of the doctoral program have been achieved.

The dissertation and its results shall continuously be presented and discussed at research seminars or undergo a corresponding review by the Department. During the research study period, the doctoral student shall regularly present his research at open seminars or conferences.



## **ANNEX: QUALITATIVE TARGETS**

Qualitative target in accordance with the Higher Education Ordinance (HF)

## **Degree of Doctor**

#### Knowledge and understanding

For the Degree of Doctor, the doctoral student shall

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

#### Competence and skills

For the Degree of Doctor, the doctoral student shall

- 3. 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
- 4. 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
- 5. demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research
- 6. 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
- 7. demonstrate the ability to identify the need for further knowledge, and
- 8. 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 doctoral student shall

- 9. demonstrate intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics, and
- 10. 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 doctoral student shall have been awarded a pass grade for a research thesis (doctoral thesis) of at least 120 credits.



#### Degree of Licentiate

#### Knowledge and understanding

For a Degree of Licentiate, the doctoral student shall

1. demonstrate knowledge and understanding in the research domain 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 doctoral student shall

- 2. 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,
- 3. 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
- 4. demonstrate the skills required to participate autonomously in research and development work and to work autonomously in another qualified capacity.

### Judgement and approach

For a Degree of Licentiate, the doctoral student shall

- 5. demonstrate the ability to make assessments of ethical aspects of his or her own research,
- 6. 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
- 7. demonstrate the ability to identify the need for further knowledge, and take responsibility for his or her ongoing learning.

#### Thesis

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