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UMEÅ UNIVERSITET

General syllabus for doctoral studies in industrial design

with doctoral degree as goal

Scope: 240 credits
Degree: Doctoral degree
Level: Third-cycle level
Established: General syllabus established by the Faculty of Science and Technology Board on 2025-10-20
Valid from: 2025-11-01
Body responsible: Faculty of Science and Technology

This document has been translated from Swedish into English. If the English version differs from the original, the Swedish version takes precedence.

1. Subject description and delimitation

Industrial design is about how products, environments, services and systems come into being, with a focus on the processes and contexts that create, plan, determine and shape them. Industrial design has in many respects undergone significant changes over time. However, there is still a basic orientation towards outcomes that are intended to be serially produced or scaled up, thereby in one way or another reaching a broader group of people. The conditions for individual depth created within the doctoral education are thus situated in an oftentimes interdisciplinary design methodology (rather than personal artistic expression), and in new possibilities such as emerging technologies and contemporary social issues (rather than in-depth knowledge of a specific form of production or a certain material). The education is as a whole characterised by fundamental questions regarding relationships between design and use, and between the individual and society, with a foundation in a Scandinavian design tradition. From this follows that the subject area of design also incorporates a broader understanding of the historical as well as the contemporary and possible future contexts that create the conditions we work with and within, particularly social, cultural and knowledge-based approaches to the people, environments and contexts that we design in, with and for.

2. The objectives of the education

2.1 Description of education at the current level

The education is at third-cycle level. The objectives for third-cycle studies can be found in Chapter 1, § 9a of the Swedish Higher Education Act.

2.2 National goals for the degree

The national goals for the degree can be found in Annex 2 of the Swedish Higher Education Ordinance.

The objectives for the doctoral degree in Industrial Design are defined by the Swedish Higher Education Ordinance, Chapter 6, §§ 4 and 5 (see appendix), in which the terms *research field* and *limited area of the research field* are interpreted as industrial design in the sense above, and as the doctoral student's specialisation within this subject.

The objectives of the Swedish Higher Education Ordinance are supplemented by a gender equality and equal opportunities perspective, which is integrated into the content and organization of the education, and gives the doctoral student an insight into how the perpetuation of inequalities through traditional structures can be counteracted.

3. Entry requirements prerequisites

To be admitted for studies at doctoral level the applicant is required to meet the general entry requirements and the specific entry requirements as described below, and be deemed to have the necessary ability to benefit from the education. (Higher Education Ordinance, Chapter 7, Section 35)

General entry requirements

To fulfil the general entry requirements, the applicant must have qualifications equivalent to a completed degree at advanced level (second-cycle), or completed course requirements of at least 240 ECTS credits including at least 60 ECTS credits at advanced level, or has otherwise acquired essentially equivalent knowledge within Sweden or abroad. The faculty board may, in the case of a specific applicant, consent to an exemption from the general entry requirements if there are special reasons to do so. (Higher Education Ordinance, Chapter 7, Section 39)

Specific entry requirements

To fulfil the specific entry requirements to be admitted to doctoral studies in industrial design, the applicant must have at least 90 credits within the field of design or other relevant subjects, of which at least 30 credits must be at advanced level.

The requirements for prior knowledge as described above are also considered to be met by those who have otherwise acquired essentially equivalent knowledge.

4. Selection

Selection among applicants who meet the entry requirements will be made with consideration of their ability to benefit from doctoral education, and is based on the following assessment criteria:

- personal suitability
- previous study results
- the quality of the submitted description of the intended thesis project, related – where applicable – to the relevant research institution's research profiles and programmes
- the quality of the material attached to the application, where applicable (e.g. design portfolio, previous publications), and
- other qualifications

An applicant must not be given preference over another applicant during the selection process solely based on the assessment that this applicant can receive accreditation for previous education or professional activities. (Swedish Higher Education Ordinance Chapter 7, § 41)

Decisions regarding admission to studies at doctoral level concluding in a doctoral degree are made in accordance with Umeå University's delegation of authority.

5. Content and structure

5.1 General

An individual study plan is to be established for each doctoral student, which shall give details of financing, supervision, courses, thesis-related work, etc. For a doctoral degree, the studies shall entail 240 higher education credits (ECTS). A doctoral student can, if desired, pursue a licentiate degree as an intermediate goal.

Doctoral studies leading to a doctoral degree comprise four years net study time and consist of a course component of 60-90 credits and a doctoral thesis of 150-180 credits.

5.2 Content

The content of the education consists of a course element and the thesis work. The course element consists of compulsory courses that are common to all doctoral students within the subject and a varying number of additional courses that are decided on individually in accordance with each doctoral student’s needs. The compulsory courses provide breadth and depth within the subject area of design and its research methodology, and introduce and address generic competences. The annual review of the doctoral student’s individual study plan ensures an appropriate selection of courses and other activities in order to achieve the national and local objectives for doctoral studies.

The education has a strong international dimension. Doctoral students take part in international collaborations, and are expected to present their research findings in international contexts.

5.2.1 Courses

Doctoral studies with a degree of doctor in industrial design as the final objective consist of a course element worth 60–90 credits, including both compulsory courses and other courses. Taking into account the doctoral student’s prior knowledge, research specialisation and interests, the course element is designed in consultation between the supervisors and the doctoral student, and is entered into the individual study plan.

Compulsory faculty-wide courses consist of courses that develop generic competencies. These are decided on and provided by the Faculty of Science and Technology:

- Introduction for doctoral students at the Faculty of Science and Technology, 1 credit
- Writing science, 5 credits
- Oral presentation, 1 credit
- Science, ethics and society, 4 credits

Compulsory subject-specific courses consist of courses of at least 20 credits that provide depth within the field of design and the chosen research specialisation. Subject-specific course requirements can be fulfilled via courses arranged by Umeå University or other higher education institutions. The compulsory subject-specific courses are connected to the local objectives for the education, and should include a combination of courses within the following 5 areas:

- design research methodology, with focus on practice-oriented design research
- design theory and philosophy
- use and users with a focus on user involvement and participation
- design history
- design research ethics

Seminar participation in Umeå Institute of Design's research seminar is compulsory in accordance with the established course syllabus and corresponds to 8 credits.

Other courses to achieve a total of 60-90 credits are elective. They are decided on by the supervisors in consultation with the doctoral student based on relevance to the individual learning outcomes and the focus of the thesis work, and are stated in the individual study plan. Doctoral students who teach during their doctoral studies must take a course in higher education pedagogy.

5.2.2 Doctoral thesis

The doctoral thesis comprises 150–180 credits. It can take the form of either a single, coherent scientific work (a monograph thesis) or a compilation of scientific articles with an introduction, a summary and a discussion (a compilation thesis), which must also include a description of the author's contribution to each paper. The thesis must also contain a popular science summary intended for readers outside academia.

The thesis work and its results shall be continuously presented and discussed at research seminars, or shall undergo equivalent review arranged by the department. The following thesis seminars are compulsory for all doctoral students at Umeå Institute of Design:

- *20% seminar:* Held during the second term. The research outline/idea is presented.
- *Mid-way seminar:* Held when the doctoral student is approximately halfway through their studies. A first draft of the content, focus and structure of the thesis and its context, materials and methodology is presented.
- *80% seminar:* Approximately ten months before the planned defence of the doctoral thesis. A draft of the thesis manuscript is presented, with all the included sections detailed to a sufficient degree for an external opponent to carry out an overall assessment.
- *Final review:* Approximately three months before the planned defence of the

doctoral thesis. The completed thesis manuscript is reviewed by the examiner and either an external or an internal reviewer.

The doctoral thesis should be written in English. The thesis must have a detailed summary in Swedish, and may also have summaries in other languages, including national minority languages.

The doctoral thesis shall be defended orally at a public defence. It is assessed and graded as pass or fail. The assessment and grading shall take into account the content of the thesis and its defence.

6. Examination

The doctoral degree is awarded after the doctoral student has completed a doctoral programme of 240 ECTS credits as specified above, obtained a Pass grade in all examinations included in the programme, and written and publicly defended a doctoral thesis that the examining committee has approved. The degree certificate is issued upon application to the Student Services/Examination Office.

7. Other instructions

The provisions that apply in respect of doctoral studies can be found in:

- The Higher Education Ordinance: Chapter 5 Employment of doctoral students, Chapter 6 Courses and study programmes, and Chapter 7 Admission to courses and study programmes, Annex 2 Qualifications ordinance.
- Admission regulations for doctoral education at Umeå University.
- Local degree ordinance at Umeå University.
- Rules for doctoral education at Umeå University.
- Handbook for doctoral studies at the Faculty of Science and Technology at Umeå University.

Learning outcomes for the doctoral degree (Higher Education Ordinance, Chapter 6, Sections 4 and 5)

Knowledge and understanding

For the doctoral degree, the doctoral 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 the doctoral degree, the doctoral 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 their 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 in 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 doctoral degree, the doctoral 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 individual's responsibility for how this is used.

For a doctoral degree in Industrial Design, the doctoral student shall also (local objectives):

Knowledge and understanding

- demonstrate familiarity with and a systematic understanding of the scientific, artistic and interdisciplinary approaches of the field of design in general, and of practice-based design research in particular.

Competence and skills

- demonstrate ability to use design – critically, independently, creatively and with precision – for both investigative and experimental purposes, and to present and communicate their research process and findings.

Judgement and approach

- demonstrate an in-depth insight into the possibilities, limitations, ethics and responsibilities of the field of design, including a broad understanding of its role in society from global and sustainability-related perspectives, and
- demonstrate ability to critically assess and reflect on their own research process and their role as a design researcher with regard to knowledge contributions to the field of design.