



General syllabus for third-cycle studies in industrial design

For a degree of doctor

Scope: 240 higher education credits

The Degree: Degree of Doctor

Study level: Third-cycle

Established by: General syllabus established by the Faculty of Science and Technology Board on March 16, 2021

Enters into force: 2021-03-16

Responsible body: Faculty of Science and Technology

1. Field of Study

Industrial design is about how products, environments, services and systems are created with a focus on the processes and contexts that envision, plan, determine and produce them. Industrial design has undergone major changes in many respects, but the basic orientation towards results that are intended to be produced in series or at a scale, and which in one way or another reach a larger group of people, largely remains. The focus and depth of the PhD programme is thus found in an often interdisciplinary design methodology (rather than own artistic expression), in new possibilities such as emerging technologies and contemporary societal issues (rather than deep knowledge of a specific form of production or a specific material), and as a whole of fundamental issues in a Scandinavian design tradition concerning relationships between design and use, individual and society. This also means that the subject includes a broader understanding of the historical as well as contemporary and possible future contexts that create the conditions we work with and within, including social, cultural and epistemological perspectives concerning people, environment and context.

2. Learning outcomes

2.1 Description of education at current level

The education is at the research level. The goals for postgraduate education are found in the Higher Education Act, Chapter 1, Section 9a.

2.2 Learning outcomes for the current degree

The national learning outcomes for the degree can be found in Appendix 2 of the Higher Education Ordinance.

The learning outcomes for the degree of doctor in industrial design are those specified by the Higher Education Ordinance, Chapter 6, Sections 4 and 5 (see Appendix A), where the terms research field and area of specialization are to be interpreted in accordance with the preceding section. These learning outcomes are complemented by a gender and equal opportunities perspective which is integrated in the content and organization of the programme. It provides the



student with additional insights into how the upholding of inequality by traditional structures and perspectives can be counteracted.

3. Entry requirements and prior knowledge required

To be admitted for studies at third-cycle level the applicant is required to meet the general entry requirements and the specific entry requirements that the board of the Faculty of Science and Technology Board has prescribed, and shall be considered as otherwise possessing that required to benefit from the studies. (Higher Education Ordinance, Chapter 7, Section 35)

General entry requirements

To be admitted for studies at third-cycle level the applicant is required to have completed a second-cycle level degree, or completed course requirements of at least 240 credits, of which at least 60 credits are at second-cycle level, or have an equivalent education from overseas, or equivalent qualifications.

Applicants who meet the general entry requirements that applied prior to 1 July 2007, i.e. at least 120 credits or the equivalent, meet the current general entry requirements up to and including 30 July 2015.

Specific entry requirements

To fulfil the specific entry requirements to be admitted for studies at third-cycle level in industrial design, the applicant is required to have completed at least 90 credits within the field of design or other relevant fields, of which at least 30 credits shall have been acquired at second-cycle level. Applicants who in some other system either within Sweden or abroad have acquired largely equivalent skills are also eligible.

4. Selection process

A selection process involving applicants who meet the entry requirements will be conducted with reference to their ability to benefit from third-cycle studies, and is based on the following assessment grounds:

- personal suitability
- previous study results
- quality of the submitted description of the intended thesis project, where appropriate related to the research profile and programme of the research department in question, and
- the quality, where appropriate, of material accompanying the application, such as design portfolios, previous publications, etc.
- other merits

Where it is assessed that an applicant can receive accreditation for previous education or professional activities, they may not be given preference over other applicants in the selection process. (Higher Education Ordinance, Chapter 7, Section 41)

Decisions regarding admissions to studies at third-cycle level concluding in a doctoral degree are made in accordance with Umeå university's delegation of authority.



5. Contents and scheduling

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 degree of doctor to be awarded, the studies shall entail 240 credits. A doctoral student who is admitted for third-cycle studies that are to conclude with a doctoral degree can, the student so wishes, study for a licentiate degree as an intermediate goal.

5.2 Contents

The study programme in Industrial Design comprises mandatory courses equivalent to 40 credits, participation in research seminars equivalent to 8 credits and elective courses comprising 22-52 credits.

5.2.1 Courses

Third-cycle studies in industrial design that are to be concluded with a doctoral degree consist of a course component of 70-100 credits which is divided up so obligatory courses constitute 40 credits, seminar participation constitutes 8 credits and the remainder of the credits are comprised of elective courses.

The courses that are mandatory for the degree can be divided up into three groups: subject-specific courses, courses concerning academic research in general, and obligatory participation in the department's research seminars. The mandatory elements can either be satisfied by participation in courses arranged by the department, or by the doctoral student, according to the supervisor's assessment, either within Sweden or abroad, acquiring largely equivalent skills in another manner.

The following courses are mandatory for all doctoral students in Faculty of Science and Technology:

Courses developing general competence:

- *Introduction to Doctoral Studies at the Faculty of Science and Technology*, 1 ECTS credit
- *Oral Presentation*, 1 ECTS credits
- *Writing Science*, 5 ECTS credits
- *Philosophy of Science*, 2 ECTS credits
- *Introduction to Research Ethics*, 2 ECTS credits

The subject-specific courses are to comprise a total of at least 30 credits, divided between the four following thematic areas (at least 5 credits within each area):

- Use and users
- History
- Methodology, especially research through design
- Theory

Mandatory for a doctoral degree are courses that develop general skills, and which amount to 10 credits. Eight of these credits are to consist of courses within philosophy of science, ethics and conduct, oral presentation and written presentation. Two of these credits are to consist of courses in pedagogy.

Other courses are elective and are decided on by the supervisor based on their relevance to individual study goals and the specialisation of the thesis project.



5.2.2 Doctoral thesis

The doctoral thesis may either take the form of a single coherent work (a monograph) or a compilation of a number of academic essays incorporating an introduction, a summary and discussion of the essays (compilation thesis) and is to comprise 140-170 credits.

With the doctoral thesis, the doctoral student shall demonstrate that the national goals for a degree of doctor are fulfilled. The doctoral thesis is to be defended verbally in public. The thesis is assessed with the following grades: G (Pass) or U (Fail). When setting the grade, attention will be paid to the content of the thesis and its defence.

6. Examination

The degree of doctor can be awarded following the student's completion of third-cycle studies equivalent to 240 credits within industrial design, and where the applicant has received the grade of pass for the tests included in the studies in addition to writing and publicly defending a doctoral thesis approved by the Examining Committee. Degree certificates are issued following application to Student Services/Degree Evaluation Office.

7. Other instructions

The provisions that apply in respect of third-cycle 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 studies at Umeå University (Ref. no. FS 1.1.2-25-14).
- Local system of qualifications at Umeå University (Ref. no. 500-2958-11).
- Regulations for doctoral studies at Umeå University (Ref. no. 500-953-13).
- Handbook for postgraduate students at the Faculty of Science and Technology at Umeå University.



Appendix A

Learning outcomes for the degree in question

(Higher Education Ordinance, Chapter 6, Sections 4 and 5)

Knowledge and understanding

For the degree of Doctor of Philosophy 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 the degree of Doctor of Philosophy the third-cycle student shall

- 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 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 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 degree of Doctor of Philosophy 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 this is used.

Local learning outcomes for the degree in question

Knowledge and understanding

For the degree of Doctor of Philosophy the third-cycle student shall

- demonstrate broad knowledge and systematic understanding of the field of design, as well as advanced and up-to-date specialised knowledge in a limited area of design research, and



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- demonstrate understanding of the artistic foundations of the field of design in general and of the methodology of the specific field of research in particular.

Competence and skills

For the degree of Doctor of Philosophy the third-cycle student shall

- demonstrate the ability to independently and critically examine and assess new and complex phenomena, issues and situations within the field of design.
- demonstrate the ability to identify and formulate issues critically, independently, creatively and with relevance to design practice, and to plan and use appropriate methods to conduct research and other qualified assignments within predetermined time frames, and to review and evaluate such work,
- demonstrate the ability to relate one's own research to other design research, and ultimately also its relevance and application in design and society.

Judgement and approach

For the degree of Doctor of Philosophy the third-cycle student shall

- demonstrate specialised insight regarding the possibilities and limitations of design, its role in society and academia.