



## GENERAL SYLLABUS FOR THIRD-CYCLE EDUCATION IN INDUSTRIAL DESIGN

TFN-chair 2018-11-20

### 1 Subject area

Industrial design comprises theories and methods for design of products, services, communication and environments, based on physiological, social and cultural conditions

### 2 Programme curriculum

Education at third-cycle level in *Industrial Design* that concludes with a Licentiate degree comprises a total of two years of full-time study (120 credits) and consists of a study programme that results in 30-60 credits and a licentiate thesis that results in 60-90 credits.

Education at third-cycle level in *Industrial Design* that concludes a Doctorate degree comprises four years of full-time study (240 credits) and consists of a study programme of 60-90 credits and a doctoral thesis that results in 150-180 credits.

The third-cycle level education includes academic work documented in a licentiate and/or a doctoral thesis. The focus of the academic work is chosen based on current research challenges and is defined in consultation with supervisors. The academic work in the form of dissertation/thesis in *Industrial Design* can either be presented as a homogenous, cohesive academic work (monograph) or as a comprehensive summary of academic essays (composite thesis), which the third-cycle student has written alone or together with another person or persons.

The quality of the academic work should meet general requirements for publication in scientific reviewed journals and/or conferences or other accepted scientific publications. In cases where the third-cycle level student does not wish to write a licentiate thesis, an open 50-percent seminar with an external examiner will instead be completed after achieving 120 credits. A precise element in the third-cycle level education at *Industrial design* is that the academic results, in addition to being published in, for example, scientific journals can be developed and communicated in other forms and media such as exhibitions, prototypes, performances, movies, etc. For such cases, documentation and discussion of methodology and results with supervisors and subject representatives is of utmost importance.

The academic work and its results shall be continuously presented and discussed at research seminars or undergo equivalent examination by the institution. During the study period, the research student shall hold open seminars at least once a year and preferably once per semester.

For each doctoral student, an individual study plan (according to template) is drawn up, where the individual structure of both the academic work and the study programme of the third-cycle level education is presented. The individual study plan shall be followed up by both supervisors and doctoral students. The Head of Department determines the individual study plan twice a year, by delegation of the Vice-chancellor.

### 3 Eligibility and selection

#### 3.1 General eligibility requirements

An individual fulfils the general eligibility requirements for the third-cycle level educational programme when she or he has:

- Completed a second-level degree, i.e. completed course requirements of at least 240 credits, of which at least 60 credits are for second-cycle courses, or
- In some manner, in this country or abroad, has acquired equivalent qualifications

The university may grant an individual applicant an exception to the requirement for general eligibility, if there are special reasons. Higher Education Ordinance 7:39 (2010: 1064). See also LTU's local guidelines in admission regulations for third-cycle level education.

#### 3.2 Specific eligibility requirements

- At least 30 higher education credits with relevance to the subject area *Industrial Design*, of which at least 15 credits at second-cycle level, or
- An immersion area of at least 20 credits at second-cycle level relevant to the subject area, or
- Artistic degree, Master of Science degree, or Master's degree relevant to the subject area.

#### 3.3 Selection

Selection among applicants who meet the requirements shall be made with regard to their ability to take benefit from the education. The mere fact that an applicant is expected to receive credits towards the education for previous education or working activities may not alone give the applicant precedence over other applicants in the selection process, as per chapter 7:41 of the Higher Education Ordinance (2010: 1064). See also LTU's local guidelines in admission regulations for third-cycle level education.

In the case of a selection among applicants for third-cycle level education in *Industrial design*, the following criteria apply:

1. Knowledge relevant to the academic project in question and the subject area *Industrial design*, which can be shown for example through attached documents and interviews,
2. Evaluated ability for independent work and ability to formulate and to take on academic issues. Assessment can, for example, be based on the quality of the applicant's master thesis project and the interview.
3. Personal characteristics relevant to education at the third-cycle level, such as documented written and oral communication skills, which can be demonstrated through attached documents,
4. Other relevant experiences for postgraduate education, e.g. documented professional experience relevant to the subject area *Industrial design*.

#### 4 Examinations included in the education

The education consists of a study programme and academic work. Exams included in the third-cycle level education are assessed with the grade approved/failed. Grades for courses and licentiate thesis are determined by specially appointed teachers (examiner). Grades for doctoral thesis are decided by a specially appointed grade committee.

##### 4.1 Study programme/courses

The third-cycle level study programme in Industrial Design is structured with a study programme (courses) and a part consisting of academic work. The study programme is divided into three blocks, where the content is reviewed annually and updated as required. Considering the doctoral student's prior knowledge, research orientation and interests, the courses are also designed in consultation with the research student.

- I. *Immersion in the field of Industrial design* and the chosen research direction (at least 15 credits to licentiate, at least 22.5 credits to doctor). Includes courses that contribute to a deeper understanding of the research subject Industrial design and the ability to develop independency and scientifically approved work.
- II. *Research methodology, theory of science and research ethics* or equivalent (at least 15 credits to lic, at least 22.5 credits to the doctor). Includes courses in general academic methodology and ethical issues in the design subject in particular.
- III. *Expansion*: Includes courses in, for example, engineering, social sciences, behavioral sciences, natural science, humanities, art, economics or pedagogy that contribute to the achievement of the objectives of third-cycle level education.

##### 4.1.1 Recognition of prior studies

As specified in the local guidelines laid down in the admission rules for third-cycle education at Luleå University of Technology.

##### 4.2 Academic thesis

Academic work in the form of dissertation/thesis in *Industrial Design* shall be designed as a homogeneous, cohesive academic work (monograph), or as a comprehensive summary (compilation thesis) of scientific articles, which doctoral student has written alone or in common with another person or persons.

Thesis manuscripts shall be presented at one or more research seminars or undergo equivalent review through the agency of the department.

The licentiate thesis is defended orally at a public licentiate seminar with external examiner and is assessed with either of the grades disapproved or approved. When the thesis is graded, both to the content of the thesis and the defense of the thesis are taken into consideration. The grade for a licentiate dissertation is decided by an examiner appointed by the Head of department. In addition to the summary, a compilation thesis for the licentiate degree shall contain academic journals (usually two).

The doctoral thesis is defended orally at a public disputation with external opponent and a grading committee and is assessed with either of the grades failed or approved. When the thesis is graded, both to the content of the thesis and the defense of the thesis are taken into consideration. Grades for a doctoral dissertation are decided by a grading committee, which is specifically appointed for each doctoral thesis by the Head of department. In addition to the summary, a compilation thesis for the doctorate degree shall contain academic journals (usually four).

## **5 Degree**

In Industrial Design, a third-cycle level student who has been admitted to a Degree of Doctor has the possibility to take a Degree of Licentiate after completing one part comprising at least 120 credits of a study programme and academic work, intended to conclude with the award of a Degree of Doctor.

### **5.1 Degree objectives**

As specified in the Qualifications Ordinance (Higher Education Ordinance, Annex 2 – Degree Ordinance). See also the annex below.

### **5.2 Degree title**

A third-cycle level student who takes a licentiate degree in Industrial Design receives the degree title of *Licentiate in Philosophy*.

A third-cycle level student who takes a Degree of Doctor in Industrial Design receives the degree title of *Doctor of Philosophy*.

Requests for other degree titles are made according to established guidelines.

## **6 Entry into effect and interim regulations**

General syllabus for Industrial design applies for admission of third-cycle students admitted 2018-11-20 and later (ref nr LTU-3603-2018).

## BILAGA

### Mål för utbildning på forskarnivå (examensordningen, [HF bil 2](#)):

#### 1 Kunskap och förståelse

För licentiatexamen 120 högskolepoäng (hp) skall doktoranden visa kunskap och förståelse inom forskningsområdet, inbegripet aktuell specialistkunskap inom en avgränsad del av detta samt fördjupad kunskap i vetenskaplig metodik i allmänhet och det specifika forskningsområdets metoder i synnerhet.

För doktorsexamen 240 högskolepoäng (hp) skall doktoranden

- visa brett kunnande inom och en systematisk förståelse av forskningsområdet samt djup och aktuell specialistkunskap inom en avgränsad del av forskningsområdet, och
- visa förtrogenhet med vetenskaplig metodik i allmänhet och med det specifika forskningsområdets metoder i synnerhet.

#### 2 Färdighet och förmåga

För licentiatexamen 120 hp skall doktoranden

- visa förmåga att kritiskt, självständigt och kreativt och med vetenskaplig noggrannhet identifiera och formulera frågeställningar, att planera och med adekvata metoder genomföra ett begränsat forskningsarbete och andra kvalificerade uppgifter inom givna tidsramar och därigenom bidra till kunskapsutvecklingen samt att utvärdera detta arbete,
- visa förmåga att i såväl nationella som internationella sammanhang muntligt och skriftligt klart presentera och diskutera forskning och forskningsresultat i dialog med vetenskapssamhället och samhället i övrigt, och
- visa sådan färdighet som fordras för att självständigt delta i forsknings- och utvecklingsarbete och för att självständigt arbeta i annan kvalificerad verksamhet.

För doktorsexamen 240 hp skall doktoranden

- visa förmåga till vetenskaplig analys och syntes samt till självständig kritisk granskning och bedömning av nya och komplexa företeelser, frågeställningar och situationer,
- visa förmåga att kritiskt, självständigt, kreativt och med vetenskaplig noggrannhet identifiera och formulera frågeställningar samt att planera och med adekvata metoder bedriva forskning och andra kvalificerade uppgifter inom givna tidsramar och att granska och värdera sådant arbete,
- med en avhandling visa sin förmåga att genom egen forskning väsentligt bidra till kunskapsutvecklingen,
- visa förmåga att i såväl nationella som internationella sammanhang muntligt och skriftligt med auktoritet presentera och diskutera forskning och forskningsresultat i dialog med vetenskapssamhället och samhället i övrigt,
- visa förmåga att identifiera behov av ytterligare kunskap, och
- visa förutsättningar för att såväl inom forskning och utbildning som i andra kvalificerade professionella sammanhang bidra till samhällets utveckling och stödja andras lärande.

### **3 Värderingsförmåga och förhållningsätt**

För licentiatexamen 120 hp skall doktoranden

- visa förmåga att göra forskningsetiska bedömningar i sin egen forskning,
- visa insikt om vetenskapens möjligheter och begränsningar, dess roll i samhället och människors ansvar för hur den används, och
- visa förmåga att identifiera sitt behov av ytterligare kunskap och att ta ansvar för sin kunskapsutveckling.

För doktorsexamen 240 hp skall doktoranden

- visa intellektuell självständighet och vetenskaplig redlighet samt förmåga att göra forskningsetiska bedömningar, och
- visa fördjupad insikt om vetenskapens möjligheter och begränsningar, dess roll i samhället och människors ansvar för hur den används.

### **4 Vetenskaplig uppsats**

För licentiatexamen 120 hp skall doktoranden

- ha fått en vetenskaplig uppsats om minst 60 högskolepoäng godkänd.

För doktorsexamen 240 hp skall doktoranden

- ha fått en vetenskaplig avhandling (doktorsavhandling) om minst 150 högskolepoäng godkänd.