



## **General syllabus for third-cycle studies in Architecture TEAAAF00**

The syllabus was approved by the Board of the Faculty of Engineering/LTH on 24 September 2007 and most recently amended 12 March 2019 (reg. no U 2019/104).

### **1. Subject description**

The subject addresses the significance of architecture and spatial design for the relationship between people and the built environment. The applications of the subject are to be found in the planning, artistic shaping, design, creation, use and change of the built environment.

Research in the subject aims to develop theories and methods, and to collect and systematise information and experiences supporting the development of the subject and discipline of architecture. The field can encompass issues in the social sciences, science, engineering, humanities, aesthetics and art.

The research deals with topics such as the properties of the built environment and its significance for different forms of societal life, including cultural and social aspects; spatial design techniques and their implications; participatory design; artistic methodology; and distinctive environments with regard to climate, culture and architecture.

### **2. Objective of third-cycle studies at LTH**

The Board of LTH established the following objective for third-cycle studies on 15 February 2007.

The overall objective of third-cycle studies at LTH is to contribute to social development and prosperity by meeting the needs of business and industry, academia and wider society for staff with third-cycle qualifications. LTH shall primarily provide education leading to a PhD or licentiate in the fields of LTH's professional degrees. The programmes are first and foremost intended for the further training of engineers and architects. The programmes are designed to encourage personal development and the individual's unique qualities.

Third-cycle graduates from LTH shall demonstrate:

- proficiency in research theories and methods and in a critical, scientific approach

- both breadth and depth of knowledge within the subject of his or her third-cycle studies

The programmes aim to develop:

- creativity and independence with the ability to formulate advanced research issues, solve problems and plan, carry out and evaluate projects within a set time frame
- openness to change
- personal networks, both national and international
- social skills and communication skills
- teaching ability
- innovation skills, leadership and entrepreneurship

In order to enable students to achieve these skills and abilities, LTH provides:

- high-quality supervision and good conditions for study in a creative environment
- a good balance between basic and applied research, with openness to wider society
- a range of advanced third-cycle courses at both departmental and faculty level
- a good balance between courses and thesis work
- opportunities to present research findings at national and international conferences and in internationally recognised journals, or by another equivalent method which leads to wide exposure and circulation
- opportunities to spend time in international research environments for short or extended periods

### 3. Learning outcomes for third-cycle studies

The learning outcomes for third-cycle studies are given in the Higher Education Ordinance.

#### 3.1 Licentiate

##### *Knowledge and understanding*

For a 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 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
- 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 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
- demonstrate the ability to identify the personal need for further knowledge and take responsibility for his or her ongoing learning

**3.2 Doctor of Philosophy***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
- 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 thesis 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
- 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
- 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

**4. General and specific admission requirements**

A person meets the general admission requirements for third-cycle courses and study programmes if he or she:

1. has been awarded a second-cycle qualification, or

2. has satisfied the requirements for courses comprising at least 240 credits of which at least 60 credits were awarded in the second cycle, or
3. has acquired substantially equivalent knowledge in some other way in Sweden or abroad.

The higher education institution may permit an exemption from the general entry requirements for an individual applicant, if there are special grounds. Ordinance (2010:1064).

A person meets the specific admission requirements if he or she has

- at least 120 credits in subjects of relevance to the field and sufficient proficiency in Swedish or English to be able to complete the programme.

Finally, the student must be judged to have the potential to complete the programme.

Exemptions from the admission requirements may be granted by the Board of LTH.

## 5. Selection

Selection for third-cycle studies is based on the student's potential to profit from such studies.

The assessment of potential in accordance with the first paragraph is made primarily on the basis of academic results from the first and second cycle. Special attention is paid to the following:

1. Knowledge and skills relevant to the thesis project and the subject of study. These may be demonstrated through documents appended to the application and at a possible interview.
2. An assessment of ability to work independently and to formulate and tackle research problems. The assessment could be made on the basis of the student's degree project and a discussion of this at a possible interview.
3. Written and oral communication skills
4. Other experience relevant to the third-cycle studies, e.g. professional experience

## 6. Degree requirements

Third-cycle studies lead to a PhD or, if the student wishes or if it has been specified in the decision on admission, to a licentiate. The student also has the right to complete a licentiate as a stage in his or her third-cycle studies, but is not obliged to do so.

The requirements for a licentiate are:

- passed courses of at least 30 credits, and
- a passed thesis of a scope corresponding to studies of at least 60 credits

The thesis and courses shall comprise at least 120 credits in total.

The requirements for a PhD are

- passed courses of at least 60 credits, and
- a passed thesis of a scope corresponding to studies of at least 120 credits

The thesis and courses shall comprise at least 240 credits in total.

### 6.1 Degrees awarded

The programme can lead to the following degrees:

*Teknologie licentiatexamen*/Licentiate in Engineering

*Teknologie doktorsexamen*/Doctor of Philosophy in Engineering

or:

*Filosofie licentiatexamen*/Licentiate of Philosophy

*Filosofie doktorsexamen*/Doctor of Philosophy

## 7. Course component

The programme is to include courses. For each course, an examiner shall be appointed at the department that delivers the course. The examiner shall draw up a written syllabus which states the course title in Swedish and English, the learning outcomes of the course, the course content and the number of credits.

The individual study plan is to include details of which courses the individual student shall or may include in his or her studies and how many credits for each course may be included in the degree. Courses taken at other faculties or higher education institutions may also be included in the study plan.

It is compulsory to participate in and pass the course Introductory Workshop for Newly Admitted Doctoral Students at LTH (*Introduktionskurs för nyantagna doktorander vid LTH*) GEM056F or the equivalent.

The following guidelines apply to the course component of the programme.

### 7.1 Licentiate

For a degree of Licentiate, the student should include general courses in the theories and methods of research in architecture amounting to at least 7.5 credits.

Furthermore, students are recommended to include courses in the theory of science, teaching and learning in higher education and/or research communication of relevance to the subject corresponding to at least 5 credits.

In addition, subject-specific courses totalling at least 7.5 credits should be included in the degree.

Finally, the licentiate degree can include components associated with the research project (such as supervised independent study, publishing and/or conference presentations, workshops, exhibitions etc.).

### 7.2 Doctor of Philosophy

For a degree of Doctor of Philosophy, the student should include general courses in the theories and methods of research in architecture amounting to at least 15 credits.

In addition, subject-specific courses totalling at least 15 credits should be included in the degree.

Furthermore, students are recommended to include courses in the theory of science, teaching and learning in higher education and/or research communication of relevance to the subject corresponding to at least 10 credits.

Finally, the doctoral degree can include components associated with the research project (such as supervised independent study, publishing and/or conference presentations, workshops, exhibitions etc.).

## 8. Thesis

The programme shall include a research project documented in a licentiate or doctoral thesis.

A degree of Licentiate can be the final degree or a stage in the programme leading to a degree of Doctor but is not compulsory for obtaining the degree of Doctor in Architecture.

The focus of the research project is to be chosen with regard to current research issues and defined in consultation with the supervisor. It shall be possible to include research produced already during the first year of studies in the thesis. Reports on the research project shall be provided continuously. During the programme and prior to the thesis defence, the students shall present their project at no less than three open seminars.

### 8.1 Licentiate thesis

The licentiate thesis shall demonstrate the research student's ability to identify, formulate and deal with a research issue. The quality and findings of the thesis shall be at a level satisfying the standard requirements for publication in international research journals and publication series. The thesis can be structured as a monograph or as a compilation of research articles.

A licentiate thesis co-authored by two or more people can be passed if the contributions of the individual authors can be clearly discerned and reported, i. e. individually assessed.

The licentiate thesis is to be defended at a seminar including an external (to LTH) informal reviewer. The defence seminar is to be preceded by a final seminar. The grades for the thesis and the defence (Pass or Fail) are determined by the examiner.

### 8.2 PhD thesis

The PhD thesis shall demonstrate the research student's ability to independently identify, formulate and deal with a research issue and to situate it in a research context. The quality and findings of the thesis shall be at a level satisfying the standard requirements for publication in international research journals and publication series.

The thesis can be structured either as a unified research study (monograph) or as a compilation of research articles (compilation thesis). The compilation thesis is to include previously published articles. The design of the thesis can be determined

with regard to scientific and/or artistic considerations. The PhD thesis can be a substantial expansion/specialisation of the licentiate thesis.

A PhD thesis co-authored by two or more people can be passed if the contributions of the individual authors can be clearly discerned and reported, i. e. individually assessed.

When the thesis is more or less finished but prior to the public defence, a final seminar including an external critical reviewer is to be arranged.

The PhD thesis is to be publicly defended and critically reviewed by a scholar from another university. The grade is determined by the examining committee.

## 9. Other rules and regulations

Students can be admitted to third-cycle studies only if sufficient resources are available in terms of research environment, supervision and course range to enable efficient study. The supervision and conditions for study shall make it possible for the student to complete the programme in four years of full-time study.

The head of department decides on admission on the basis of documentation from the departmental board's research committee. A supervisor is appointed in conjunction with admission.

## 10. Transitional provisions

For doctoral students with an admission date of 1 January 2019 or later, it is compulsory to participate in and pass the course Introductory Workshop for Newly Admitted Doctoral Students at LTH (*Introduktionskurs för nyantagna doktorander vid LTH*) GEM056F or the equivalent in order to fulfil the requirements for the degree.