

# Doctoral programme – Architecture

## Appendix 1: Study plan for third-cycle subject Architecture (ARCHITECT).

### Subject title

Architecture (Arkitektur)

### Subject description and programme outcomes

#### Scientific field

The subject of architecture at postgraduate level, manages, develops and communicates the knowledge of architecture. The subject treats the concepts and theories of architecture and their relationship to the planning and design of the built environment. Postgraduate studies in architecture at KTH contain five areas of specialisation: architectural design, architectural technology, history and theory of architecture, critical studies in architecture, and urban design.

#### Description of possible specialisations

1. Common for all specialisations
2. Architectural design
3. History and theory of architecture
4. Architectural technology
5. Critical studies
6. Urban design

#### Specification and concretisation of how the programme outcomes are to be achieved

The outcomes of the education are those established in the Higher Education Ordinance. For the Degree of Licentiate these outcomes are (according to the wording of January 2016):

##### *Knowledge and understanding*

– demonstrate knowledge and understanding in the field of research including current specialist knowledge in a limited area of this field as well as specialist knowledge of research methodology in general and the methods of the specific field of research in particular.

##### *Competence and skills*

– 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, and  
– demonstrate the skills required to participate autonomously in research and development work and to work autonomously in some other qualified capacity.

### *Judgement and approach*

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

For the Degree of Doctor these outcomes are (according to the wording of January 2016):

### *Knowledge and understanding*

- 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*

- 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 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, 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*

- 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 it is used.

Regarding the outcomes concerning communication skills, applicable to both the Degree of Licentiate and the Degree of Doctor within Architecture, special emphasis is placed on the ability to disseminate information about architecture research to (1) the wider society, (2) a professional architectural practice and other participants in the process of building the environment, and (3) a wider informed audience, including those active within cultural and artistic arenas. Participants in the process of building the environment here include both public authorities and various businesses, customers and users. As regards the ethics of research, it is important for both degrees that the student is able to form well founded assessments of societal consequences of decisions that might be taken, based on architecture research.

Likewise, it is important to have an understanding of the social, political and economic situation in which the research is carried out, and how this influences research conditions and research results, including social and cultural norms and structures. The student must also, in respect of both degrees, have a good understanding of the relation between public policy decisions and research-based knowledge within the field of architecture and the built environment.

For the Degree of Doctor the student must have the ability autonomously and critically to examine the interaction of values and interests in society, both historically and in the present, and, in his or her research, bring out, make explicit and critically discuss how this is connected to architectural ideals, the processes of building the environment, aesthetic and architectural approaches, as well as understanding, interpretations and intentions regarding the role of architecture and the influence of architecture within society.

*The structure of the programme in relation to learning outcomes*

The learning outcomes are achieved through courses according to the individual study programme, participation in seminars, participation in national and international conferences, and through supervision.

The overall outcomes of “knowledge and understanding” are principally achieved through participation in courses and individual supervised research. Specifically, courses 1A5035 (Scientific Theory and Research Methodology in Architecture), 1A5031 (Concepts and Theories in Architecture) and relevant specialisation course contribute to knowledge and skill in understanding research generally, research in architectural theory and architectural research specifically, and particularly in the specialisation chosen by the doctoral student. In addition, courses 1A5032 and 1A5033 (Higher Seminars in Architecture, Parts 1 and 2) contribute to the understanding of the broader perspective of the subject.

The overall outcomes of “competence and skills” are principally achieved through individual supervised research and dissertation or thesis work, supported by courses and seminars. This includes practice in reading, understanding and criticising scientific texts and being able to argue for or against results and interpretations, both one’s own and those of others. In this connection, courses 1A5032 and 1A5033 (Higher Seminars in Architecture, Parts 1 and 2) as well as relevant specialisation course are particularly important, as is 1A5031 (Concepts and Theories in Architecture). Practice in communication also takes place through presentations at scientific conferences and in particular through course 1A5034 (Knowledge Communication in Architectural Research). Doctoral students may often further practise communication by participating in teaching.

The overall outcomes of “judgement and approach” are achieved through supervision, discussions with colleagues as well as courses and dissertation or thesis work. Practice of the ability to make research ethical assessments takes place within supervised dissertation or thesis work, as well as within the ethics module of the compulsory courses, in particular course 1A5035 (Scientific Theory and Research Methodology in Architecture). Since different specific methodologies carry specific ethical problematics, the specialist courses are also key in terms of judgement and approach within the problematics of the speciality, while courses 1A5032 and 1A5033 (Higher Seminars in Architecture, Parts 1 and 2) are important for providing an insight into specific problems and challenges concerning judgements and approaches in other specialisations and methodological traditions.

In addition to the dissertation or thesis work, supervised research, conference and seminar activities, the outcomes specific to architecture are also captured in the courses specific to architecture, particularly course 1A5031 (Concepts and Theories in Architecture) and 1A5034 (Knowledge Communication in Architectural Research). Within the disciplines of KTH one might also note the importance of course 1A5035 (Scientific Theory and Research Methodology in Architecture) for knowledge of methodologies and approaches of artistic and interpretative sciences, as well as methodologies transcending traditional disciplinary borders.

## **Common for all specialisations**

### **Description of the specialisation**

The section describes common information for all five specialisations within the subject of Architecture.

### **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

### **Programme structure**

Postgraduate studies consist of coursework and a dissertation or thesis part. The coursework may consist of lectures, literature studies and problem-solving, as well as active participation in seminars and conferences. The five areas of specialisation within the subject of architecture at postgraduate level have different specifications relating to course requirements. Courses may be studied within the department or in cooperation with other national and international research institutes.

The main part of the knowledge content of the courses shall generally be acquired during the introductory part of postgraduate studies. This course part may also involve participation in research activities, which will prepare the student for independent work as a researcher.

Postgraduate studies are carried out under the guidance of a main supervisor together with at least one assistant supervisor, in accordance with the individual study plan. A doctoral student's progress shall be judged at least once per year in conjunction with a review of the individual study plan, which shall be carried out by the student and the main supervisor. The study plan is ratified by the Director of Third Cycle Education.

It is assumed that doctoral students have an interest and capacity to participate in undergraduate education, although this may not prolong their research studies by more than 20%. Doctoral students who teach at undergraduate level for advanced level shall have completed an introductory course in teaching methodology for universities. Doctoral students should be encouraged to undertake parts of one semester of their education at postgraduate level at a university abroad.

A licentiate degree may be taken as a part of a doctoral degree. The licentiate degree consists of coursework of 45-60 ECTS, of which 30 ECTS are obligatory, and a dissertation part of 60-75 ECTS, so that the total amounts to 120 ECTS.

A doctoral degree consists of coursework of 60-90 ECTS, of which 45 ECTS are obligatory, and a thesis part of 150-180 ECTS, so that the total amounts to 240 ECTS.

Active participation in research seminars at the department is included in the programme, which involves regularly producing original texts. This takes place in accordance with the course requirements for obligatory courses. Doctoral students should also participate in national and international conferences as well as research networks within the subject area. Seminars take place both within the framework of courses and in other forms, such as departmental research seminars as well as conferences, seminars, workshops and similar, organised in other locations; these may form part of courses but might often be regarded as a part of research activity, referred to above as “individual supervised research”.

## **Compulsory and recommended courses**

Courses will be studied in accordance with the individual study plan, based on an agreement drawn up between the doctoral student and the main supervisor.

For a doctoral degree, completion of the compulsory courses listed below (37.5 ECTS) is required. A foundation course of 7.5 ECTS, specific to the specialisation, is also required.

For a licentiate degree, compulsory courses of 30 ECTS are required, including the foundation course specific to the specialisation.

Courses listed as recommended may be selected within all specialisations, these courses may amount to 15-45 ECTS of the total course requirements.

### **Compulsory courses**

1A5033 Higher Seminars in Architecture, Part 2 7.5 ECTS.

1A5032 Higher Seminars in Architecture, Part 1 7.5 ECTS.

### **Compulsory in-depth courses**

1A5031 Concepts and Theories in Architecture 7.5 ECTS.

### **Compulsory research proficiency courses**

1A5035 Scientific Theory and Research Methodology in Architecture 7.5 ECTS.

1A5034 Knowledge Communication in Architectural Research 7.5 ECTS.

### **Recommended courses**

1A5046 Individual Seminar Course: Architecture 7.5 ECTS

1A5045 Individual Seminar Course: Architecture 5.0 ECTS.

1A5050 Individual Project Course: Architecture 15.0 ECTS.

1A5040 Theories in Urban Morphology 7.5 ECTS.

1A5042 Individual Literature Course: Architecture 5.0 ECTS.

1A5043 Individual Literature Course: Architecture 7.5 ECTS.

1A5039 Critical Studies in Architecture 7.5 ECTS.

1A5047 Individual Project Course: Architecture 5.0 ECTS.

1A5041 Individual Literature Course: Architecture 2.5 ECTS.

1A5048 Individual Project Course: Architecture 7.5 ECTS.

1A5044 Individual Seminar Course: Architecture 2.5 ECTS.  
1A5051 Philosophies in Architecture 7.5 ECTS.  
1A5049 Individual Project Course: Architecture 10.0 ECTS.

## **Thesis**

Dissertation or thesis work is an obligatory part of postgraduate studies, which aims to develop the capacity of students to make independent contributions to research as well as to participate in scientific cooperation, within and outside the student's own subject area. The dissertation or thesis may be written as a monograph or as a compilation of scientific articles. The dissertation or thesis must contain new research results, which the student has produced individually or in cooperation with others through theoretical or empirical research work. For a doctoral degree, the main scientific results should comply with the quality requirements for the publication of at least four articles in internationally recognised journals that are peer reviewed (and for the licentiate degree, at least two articles). The dissertation or thesis work should be presented once a term at a seminar and at least twice a term to the main supervisor or supervisor group. Before an application is made for a viva voce, a final public seminar shall be held with an external faculty examiner.

Dissertations or theses at KTH should normally be written in English. Should the subject matter motivate the dissertation or thesis being written in another language, the student may apply for dispensation by contacting the Director of Third Cycle Education.

### *Seminars and conferences*

An active participation, regularly presenting the student's own texts at research seminars within the Department, is part of the education programme. This takes place in accordance with the course plans for the compulsory courses. Doctoral students shall also participate in national and international conferences and research networks within the research field.

## **Architectural design**

### **Description of the specialisation**

The area of specialisation Architectural Design studies how built structures are given form. The subject area manages, develops and communicates knowledge in the fields of basic design, sustainable design, design process and advanced design. A key area is research that addresses the production of ideas, creativity, visualisation and quality assessment of architectural projects. In terms of methodology, the specialisation focuses on design theory, artistic design methods, innovation, aesthetics and methods drawn from the humanities.

### **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

### **Programme structure**

See *Common for all specialisations*

## **Compulsory and recommended courses**

The foundation course specific to the specialisation – Foundation Course in Architectural Design 7.5 ECTS – is compulsory for both the licentiate and the doctoral degree.

In addition to compulsory courses, doctoral students within the specialisation are recommended to carry out individually determined in-depth courses offered within or outside the specialisation, for example culture studies, art and technology history, aesthetics and philosophy, amounting to 15-45 ECTS.

### **Compulsory in-depth courses**

1A5036 Foundation Course in Architectural Design 7.5 ECTS.

### **Thesis**

See *Common for all specialisations*.

## **History and theory of architecture**

### **Description of the specialisation**

The area of specialisation dedicated to the history and theory of architecture, manages, develops and communicates the knowledge of architecture and its history and theory. The subject area shares a primary methodological connection with the humanities, although this does not exclude links to research perspectives from engineering, art or the social sciences. The history and theory of architecture studies architecture and building as a historic process, and also its application in relation to context and typology, rebuilding and extension, restoration and preservation.

### **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

### **Programme structure**

See *Common for all specialisations*

## **Compulsory and recommended courses**

The foundation course specific to the specialisation – Architectural Historiography 7.5 ECTS – is compulsory for both the licentiate and the doctoral degree.

In addition to compulsory courses, doctoral students within the specialisation are recommended to carry out individually determined in-depth courses offered within or outside the specialisation, for example culture studies, art and technology history, aesthetics and philosophy, amounting to 15-45 ECTS.

### **Compulsory in-depth courses**

1A5037 Architectural Historiography 7.5 ECTS.

### **Thesis**

See *Common for all specialisations*.

## **Architectural technology**

### **Description of the specialisation**

The area of specialisation “Architectural technology” investigates emerging design and production technologies and their significance for existing practices in architecture and engineering; the significance of the sustainability perspective; the relationships between different disciplines that produce architecture, with a focus on architects and other disciplines. Research methods are interdisciplinary, such as research by design, realisation of full-scale projects through connections with practising consultants and technical and humanistic analyses of the culture of building.

### **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

### **Programme structure**

See *Common for all specialisations*

### **Compulsory and recommended courses**

The foundation course specific to the specialisation – Foundation Course in Architectural Technology 7.5 ECTS – is compulsory for both the licentiate and the doctoral degree.

In addition to compulsory courses, doctoral students within the specialisation are recommended to carry out individually determined in-depth courses offered within or outside the specialisation, for example culture studies, art and technology history, aesthetics and philosophy, amounting to 15-45 ECTS.

### **Compulsory in-depth courses**

1A5038 Foundation Course in Architectural Technology 7.5 ECTS.

### **Thesis**

See *Common for all specialisations*.

## **Critical studies**

### **Description of the specialisation**

Critical studies in architecture examines the history, theories and discourses of architecture. Architecture is considered here as a profession, a discipline and a cultural expression.



Important issues treated are architectural meaning and representation, the influence of different ideologies and power structures on architecture, and in reverse, how it may in its turn reproduce ideological systems and power structures. Research methods are interdisciplinary and relate to broad humanist fields such as critical studies of culture as well as artistic methods of representation. Current research in this specialisation combines advanced history and theory with experimental artistic methods and the development of feminist architectural criticism for practice and education.

## **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

## **Programme structure**

See *Common for all specialisations*

## **Compulsory and recommended courses**

The foundation course specific to the specialisation – Critical Studies in Architecture 7.5 ECTS – is compulsory for both the licentiate and the doctoral degree. This course consists of an individual literature part of 4 ECTS, documented in an essay, and active participation in a series of 6 seminars amounting to 3 ECTS.

In addition to compulsory courses, doctoral students within the specialisation are recommended to carry out individually determined in-depth courses offered within or outside the specialisation, for example culture studies, art and technology history, aesthetics and philosophy, amounting to 15-45 ECTS.

### **Compulsory in-depth courses**

1A5039 Critical Studies in Architecture 7.5 ECTS.

### **Thesis**

See *Common for all specialisations*.

## **Urban design**

### **Description of the specialisation**

Urban design investigates how the physical form of a city contributes to the form and structure of life in the city. The subject area manages, develops and communicates knowledge about the form of the city in terms of both real buildings and representations. The development of new methods and technologies for describing and analysing built forms is given priority, in particular with respect to the performance dimension. Methodologically the area has a close relationship to the general development of society and social sciences, which does not exclude perspectives from technology, art, history and design.

## **Current research**

For a description of current research, visit <http://www.arch.kth.se/forskning/>

## **Programme structure**

See *Common for all specialisations*

## **Compulsory and recommended courses**

The foundation course specific to the specialisation – Theories in Urban Morphology 7.5 ECTS – is compulsory for both the licentiate and the doctoral degree.

This course consists of an individual literature part of 4 ECTS, documented in an essay, and active participation in a series of 6 seminars amounting to 3 ECTS.

In addition to compulsory courses, doctoral students within the specialisation are recommended to carry out individually determined in-depth courses offered within or outside the specialisation, for example culture studies, art and technology history, aesthetics and philosophy, amounting to 15-45 ECTS.

### **Compulsory in-depth courses**

1A5040 Theories in Urban Morphology 7.5 ECTS.

### **Thesis**

See *Common for all specialisations*.

## **Entry requirements and selection**

### **General and special admission requirements and prior knowledge**

The general KTH eligibility requirements for applications to postgraduate courses will be applied.

Postgraduate students are expected to be able to read and write scientific English and to speak English fluently.

### **Selection rules (for assessment criteria applicable for determining the applicants' ability to benefit from the study programmes, see Higher Education Ordinance, Chapter 7, Section 41)**

Selection of applicants for postgraduate studies is generally carried out by the department in conjunction with the admission. The Director of Third Cycle Education of the School will appoint supervisors and will in relevant cases carry out determination of eligibility. In addition to applicants being examined for eligibility, their degree of maturity and capacity for independent judgement and critical analysis form the basis for selection. Of great significance in this assessment is their experience of and competence in architectural design, as well as previous study results in advanced undergraduate studies or independently executed scientific work.

In cases where doctoral posts are advertised, a selection of applicants will be interviewed by the prospective supervisor together with another representative of the subject area and/or the director of studies. Contact is normally made with teachers at the applicant's previous educational institutions.

## **The programme's degrees and examinations**

### **Degree of Licentiate and Degree of Doctor (PhD)**

A licentiate degree may be taken as a part of a doctoral degree. The licentiate degree consists of coursework of 45-60 ECTS, of which 30 ECTS are obligatory, and a dissertation part of 60-75 ECTS, so that the total amounts to 120 ECTS.

A doctoral degree consists of coursework of 60-90 ECTS, of which 45 ECTS are obligatory, and a thesis part of 150-180 ECTS, so that the total amounts to 240 ECTS.

### **The programme's examinations**

Examinations should be included in postgraduate courses, which may be in written or oral form. Examinations should be designed so that examiners may be satisfied that the student has assimilated the entire contents of the course.