Programme syllabus

Master's Programme, Real Estate and Construction Management, 120 credits
Masterprogram, fastigheter och byggande
120.0 credits

Valid for students admitted to the education from autumn 17 (HT - Autumn term; VT - Spring term).

This is a translation of the Swedish, legally binding, programme syllabus.

Programme objectives

This information applies to students starting the programme in the 2017/2018 academic year. There may be some changes to the content in Year 2 of the programme. Always check www.kth.se/utbildning for the latest information about the programme.

- To train entrepreneurially-minded urban planners who are attractive to the labour market with their in-depth knowledge of construction project management, real estate economics and land law. Students are trained to collaborate across disciplinary boundaries, work independently, exercise their own power of initiative and create new ideas for a sustainable built environment.
- To prepare students for PhD studies.

Knowledge and understanding

Students are expected to develop and deepen their knowledge of real estate economics, land law and construction project management to prepare them for professional roles in the real estate and construction management sectors.

Skills and abilities

We expect our graduates to be competent in applying disciplinary knowledge to practical situations. We also expect our graduates to be highly proficient in systematically acquiring new knowledge and insights in the fields of real estate and construction management. To achieve this, they should be able to implement theories and concepts that are relevant to the field while adopting a critical approach. In addition, the graduates should be able to cooperate both in national and international multi-disciplinary teams, and communicate effectively, orally and in writing.
Through seminars, case studies and project assignments we train our graduates to develop their powers of independent analysis, reasoning and reflection, and to train their powers of analytical decision-making. They should also be able to complete demanding projects inside given time frames.

**Ability to make judgements and adopt a standpoint**

After completing the programme, the students should be able to reason, reflect over and make well-balanced assessments on issues related to the field, while taking ethical aspects into account. In particular we aim to train graduates to independently search for the information required to arrive at reasonable conclusions on a variety of issues.

The students should be aware of and understand the consequences of how decisions and the implementation of disciplinary knowledge can contribute to the development of social, economic and ecologically sustainable built environments.

**Extent and content of the programme**

This is a two-year programme; three terms of courses (90 ECTS) and one term consisting of a degree project (30 ECTS). The programme is at an advanced academic level. The tuition language is English and, in some courses, Swedish.

**Eligibility and selection**

The general admission requirement for masters programmes at KTH is a completed Bachelor's degree, equivalent to a Swedish Bachelor's degree (180 ECTS), or equivalent academic qualifications from an internationally recognised university. In addition, students have to meet following specific requirements:

Degree on the first level consisting of at least 180 ECTS credits/120 higher education credits or a corresponding foreign degree in the field of built environment, including civil engineering, building technology, real estate finance and investment, real estate economics, real estate/property management, construction management, architecture, planning, surveying, geomatics and law. Applicants are required to have at least

- 15 ECTS in economics/business administration and/or statistics or equivalent.

For students admitted to the programme Civil engineering and urban management, the above conditions for promotion from Year 3 to Year 4 studies also apply.

Admission to the English-language Master’s programme requires English B proficiency or equivalent. While Swedish is not a requirement for completion of the degree work, the real estate development and land law course sequence that is taught in Swedish requires students have a proficiency in Swedish equivalent to Swedish B.

Applicants who at the time of application have no degree certificate of at least 180 credits, may be granted conditional admission. Conditional admission granted if the above requirements of the degree are expected to be fulfilled by the time of registration.
A Certificate from university/college, proving that the student is enrolled in a study program which if completed will lead to the degree must accompany the notification.

**Selection**

The selection process is based on the following selection criteria: University, previous studies (for instance GPA, grades in specific subjects and English), motivation for the studies (for instance letter of motivation, references, thesis proposal and relevant work experience). The evaluation scale is 1-75.

**Implementation of the education**

**Structure of the education**

The academic year consists of one autumn and one spring term. Each term consists of two study periods. Students are expected to read two courses per period. The curriculum covers four terms of full time studies.

The programme is structured so that all students read the joint mandatory courses in periods 1 to 2 of Year 1 and the mandatory course Theory of Science and Research Methods in period 2 of Year 2. The programme also contains a number of proposed course sequences that provide a level of progression within different profiles in the programme that are oriented towards construction project management, building and real estate economics or real estate development and land law.

**Courses**

The programme is course-based. Lists of courses are included in appendix 1.

The programme is largely course-based, with some training in scientific work in the form of assignments in specific courses and a degree project. Appendix 1 includes the courses in the programme. A typical course will consist of a series of lectures combined with a project or a set of exercises, some of them resulting in term papers, project reports or oral presentations.

The courses in the course sequences are conditionally elective and conditions are also imposed by the entry requirements between courses that are built on each other to achieve a level of progression in the programme.

**Grading system**

Courses in the first and the second cycle are graded on a scale from A to F. A-E are passing grades, A is the highest grade. The grades pass (P) and fail (F) are used for courses under certain circumstances.

Information regarding the scale found in the curriculum.

**Conditions for participation in the programme**

A prerequisite for a students' participation in studies at KTH is that the student performs a course registration and semester registration for each semester.
Registration is done under the personal menu on the KTH:s webb page

Course registration is done by all students on the program www.antagning.se

**Recognition of previous academic studies**

Students are able to apply to receive credit for the results of the course/courses at another college/university within the country or abroad.

For more information please refer to KTH's regulations in www.kth.se and program's student guidance counselling.

**Studies abroad**

There are opportunities for exchange within the programme under existing agreements.

For more information and recommendation on the appropriate semester for exchange studies refer to the program's international administrators.

**Degree project**

The completion of a degree project (30 ECTS) is required to fulfil the requirements of the Master of Science Degree (MSc).

The prerequisite for starting the degree project is Pass grade in the bulk of the studies, at least 60 ECTS, of which 30 ECTS should be at advanced level in the main subject area. In addition a complete course in scientific theory and method.

If a student intends to undertake a degree in another subject area, it must be approved by the undergraduate studies.

Each student’s proposed degree project has to be approved by the senior course supervisor for the degree project. Current supervisory capacity at the department will determine which subjects are covered in the degree projects.

The thesis work is graded pass (P) or fail (F).

**Degree**

The degree of Master in the programme described above is obtained after completion of courses comprising 120 ECTS of which

- at least 90 ECTS at advanced level including mandatory and conditionally elective courses and a 30 credit degree project within the master programme.

in addition is allowed:
• a maximum of 30 ECTS of entirely elective courses

When the Master’s programme is the final part of the degree programme in Civil engineering and urban management, there are additional degree requirements according to the study programme for Civil engineering and urban management, for example courses in mathematics and science subjects for a minimum of 45 ECTS.

The application for degree is done under the personal menu on KTH:s webb page.

Appendix 1 - Course list
Appendix 2 - Programme syllabus descriptions
Appendix 1: Course list

Master's Programme, Real Estate and Construction Management, 120 credits (TFOBM), Programme syllabus for studies starting in autumn 2017

General courses

Year 1

Mandatory courses (22.5 Credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI2102</td>
<td>Real Estate Market Analysis and Development</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2152</td>
<td>Quantitative Methods Applied to Real Estate and Construction Management</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2810</td>
<td>Project Communication</td>
<td>7.5 hp  Second cycle</td>
</tr>
</tbody>
</table>

Conditionally elective courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI2135</td>
<td>Financial Investments</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2144</td>
<td>Corporate Finance</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2154</td>
<td>Advanced Valuation and Analysis</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2155</td>
<td>Urban Economics and Cost Benefit Analysis</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2156</td>
<td>Contract Theory with Application to Property Management</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2507</td>
<td>Law of Real Estate Formation</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td></td>
<td>The course is given in Swedish</td>
<td></td>
</tr>
<tr>
<td>AI2508</td>
<td>Compulsory Purchase and Compensation</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td></td>
<td>The course is given in Swedish</td>
<td></td>
</tr>
<tr>
<td>AI2511</td>
<td>Implementation of Development Plans</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI2517</td>
<td>Land Development</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td></td>
<td>New course HT17</td>
<td></td>
</tr>
<tr>
<td>AI2805</td>
<td>Building Informatics and Logistics</td>
<td>7.5 hp  Second cycle</td>
</tr>
</tbody>
</table>
Supplementary information

The programme contains a number of proposed course sequences that provide a level of progression within different profiles in the programme that are oriented towards construction project management, building and real estate economics or real estate development and land law.

These courses are given in Swedish:

AI2507 Law of Real Estate Formation
AI2508 Compulsory Purchase and Compensation
AI2517 Land Development
AI2511 Implementation of Development Plans

Year 2

Mandatory courses (7.5 Credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI2150</td>
<td>Theory of Science and Research Methods</td>
<td>7.5 hp   Second cycle</td>
</tr>
</tbody>
</table>

Conditionally elective courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI206X</td>
<td>Degree Project in Building and Real Estate Economics, Second Cycle</td>
<td>30.0 hp   Second cycle</td>
</tr>
<tr>
<td>AI2106</td>
<td>Business Cycles in Construction and Real Estate Markets</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2117</td>
<td>Facility Management</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2127</td>
<td>Management and Leadership</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2148</td>
<td>Entrepreneurial Finance</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2153</td>
<td>Financial Economics with Real Estate Applications</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2505</td>
<td>Law and Economics for Land Use Topics</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2518</td>
<td>Infrastructure - Responsibility and Financing</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI2519</td>
<td>Rent, Tenant Ownership and Leasehold Law</td>
<td>7.5 hp   Second cycle</td>
</tr>
<tr>
<td>AI252X</td>
<td>Second Project in Real Estate Development and Land Law.</td>
<td>30.0 hp   Second cycle</td>
</tr>
</tbody>
</table>
The course is given in Swedish

**AI2807**  Project for Construction Project Managers  
7.5 hp  Second cycle

**AI281X**  Degree Project in Architectural Design and Construction  
Project Management, Second Cycle  
30.0 hp  Second cycle

**Supplementary information**

**These courses are given in Swedish:**

AI2518- Infrastructure - Responsibility and Financing

AI2519- Rent, Tenant Ownership and Leasehold Law

AI2505- Law and Economics for Land Use Topics

AI252X- Degree project in Real Estate Development and Land Law
Appendix 2: Specialisations

Master's Programme, Real Estate and Construction Management, 120 credits (TFOBM), Programme syllabus for studies starting in autumn 2017

This programme has no specialisations.