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 14 (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 2014/2015 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**

*General admission requirements*

Degree on the first level consisting of at least 180 ECTS/120 higher education credits or a corresponding foreign degree. For students accepted onto the programme Civil engineering and urban management, the conditions for promotion from Year 3 to Year 4 studies also applies. In total, at least 150 ECTS from Years 1 to 3 must be completed, of which at least 110 ECTS should be from Years 1 and 2. For students whose programmes include an obligatory Bachelor’s degree project course, this course should be completed before they can start Year 4 studies.

*Specific admission 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.

Selection process

The selection process for the programme is based on a total evaluation of the following selection criteria: GPA, course work related to the programme, motivation letter, work experience and referee statements. Further details can be found in the official statements on the local admission policy of the Royal Institute of Technology (KTH). Applicants from the programme Civil engineering and urban management are guaranteed a place on the mapped Master’s programme provided they meet the conditions for promotion from Year 3 to Year 4 studies.

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 3 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. From this block of conditionally elective courses, students are required to complete a total of 52.5 ECTS.

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.

Courses at basic and advanced level 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.
Conditions for participation in the programme

To be enrolled in the programme, students must be duly accepted into the programme with a valid admission letter issued by KTH Central Admissions Office.

Before 15 May and 15 November the students are required to make a study registration and course selection for the coming term. At least 45 ECTS from the programme must be completed during the first academic year including the re-examination before promotion to the next academic year. Students who have not fulfilled this requirement must set up an individual study plan. The main goal of the study plan is to assist the student to complete the remaining courses during the next academic year. The study plan will consist of a time plan for completing outstanding coursework as well as suitable courses from the next academic year. In selecting courses for the following academic year, special consideration will be given to the student satisfying the prerequisites of the courses they would like to take.

Recognition of previous academic studies

KTH has a policy for recognising previous academic studies. The decision on recognizing documented results from similar education at other universities is taken by the vice dean of education at the School of Architecture and the Built Environment upon application by the student.

Studies abroad

The ABE school has a well-developed network of student exchange programmes with leading seats of learning inside and outside Europe. As part of the programme there are opportunities for exchange under existing agreements. Term 3 is particularly recommended for this purpose.

Degree project

The completion of a degree project (30 ECTS) is required to fulfil the requirements of the Master of Science Degree (MSc). The degree project is graded according to the grading scale A-F.

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. Students are also required to have completed the foundation course in scientific theory and method.

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. Further details about degree projects can be found in the KTH regulations:

http://intra.kth.se/regelverk/utbildning-forskning/grundutbildning/examensarbete?l=en_UK

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 15 ECTS from courses in any engineering area at basic or advanced level
• a maximum of 15 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.

Information on processing and which documents must be submitted for the application is available under the link: http://www.kth.se/student/examen.

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 2014

### General courses

#### Year 1

<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>AI2513</td>
<td>Urban Land Development</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>AI2508</td>
<td>Compulsory Purchase and Compensation</td>
<td>7.5 hp Second cycle</td>
</tr>
<tr>
<td>AI2510</td>
<td>Infrastructure - Planning and Approval</td>
<td>7.5 hp Second cycle</td>
</tr>
</tbody>
</table>
AI2511  The course is given in Swedish  7.5 hp  Second cycle
AI2514  Property Rights  7.5 hp  Second cycle
AI2805  Building Informatics and Logistics  7.5 hp  Second cycle
AI2808  Project Development and Architectural Concepts  7.5 hp  Second cycle
AI2809  Construction Management  7.5 hp  Second cycle

Supplementary information

These courses are given in Swedish:

AI 2507 Law of Real Estate Formation
AI 2508 Compulsory Purchase and Compensation
AI2510 Infrastructure - Planning and Approval
AI2511 Implementation of Development Plans

Year 2

Mandatory courses (97.5 Credits)

<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></td>
<td>This course can be replaced by AF201X with grading scale A to F</td>
<td></td>
</tr>
<tr>
<td>AI2150</td>
<td>Theory of Science and Research Methods</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AI252X</td>
<td>Degree Project in Real Estate Development and Land Law, Second Cycle</td>
<td>30.0 hp  Second cycle</td>
</tr>
<tr>
<td></td>
<td>This course can be replaced by AI251X with grading scale A to F</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The course is given in Swedish</td>
<td></td>
</tr>
<tr>
<td>AI281X</td>
<td>Degree Project in Architectural Design and Construction Project Management, Second Cycle</td>
<td>30.0 hp  Second cycle</td>
</tr>
<tr>
<td></td>
<td>This course can be replaced by AI280X with grading scale A to F</td>
<td></td>
</tr>
</tbody>
</table>

Conditionally elective courses

<table>
<thead>
<tr>
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<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<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>AI2138</td>
<td>Perspectives on Risk Management</td>
<td>7.5 hp  Second cycle</td>
</tr>
</tbody>
</table>
AI2153  Financial Economics with Real Estate Applications  7.5 hp  Second cycle
AI2505  Law and Economics for Land Use Topics  7.5 hp  Second cycle
AI2515  Infrastructure - Responsibility and Financing  The course is given in Swedish  7.5 hp  Second cycle
AI2516  Valuation Methods for Compulsory Acquisition  The course is given in Swedish  7.5 hp  Second cycle
AI2607  Compulsory Purchase  7.5 hp  Second cycle
AI2806  Knowledge Management and Evaluation  7.5 hp  Second cycle
AI2807  Project for Construction Project Managers  7.5 hp  Second cycle

Supplementary information

KTH’s president has decided that starting 2015-07-01, the grades of pass (P) and fail (F) shall be used for degree projects. Students who began their studies between 2007-07-01 and 2015-06-30 may apply to conduct their degree projects under the grading scale A-F. Such an application shall be made prior to registration in a degree project course, and prior to starting the course.
Appendix 2: Specialisations

Master's Programme, Real Estate and Construction Management, 120 credits (TFOBM), Programme syllabus for studies starting in autumn 2014

This programme has no specialisations.