Programme syllabus

Master's Programme, Sustainable Urban Planning and Design, 120 credits
Masterprogram, hållbar samhällsplanering och stadsutformning
120.0 credits

Valid for students admitted to the education from autumn 13 (HT - Autumn term; VT - Spring term).

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

Programme objectives

The information is valid for students who started the program academic year 2013/2014. Later decisions may affect year 2 in the program. Please look at www.kth.se/studies?l=en_UK for further information.

In addition to the general objectives for Masters programmes as stated in the national degree ordinance and the local degree policy of KTH, specific learning outcomes are defined for the Masters programme Sustainable Urban Planning and Design. After completing the programme requirements students shall:

Knowledge and understanding

- Be acquainted with the theoretical foundations and present developments within urban and regional planning, architecture and urban design as well as environmental sciences.
- Have a sound knowledge on processes that determine urban change and regional development, the actors that are involved in these processes, and the aesthetical, social, economic, institutional and environmental determinants that contribute to sustainable development
- Have a deep understanding of the tools and methods that can be applied to analyse the current status of cities and regions, and the prerequisites for future change.
- Comprehend the relation between theory and practice in planning and urban design, and the connections to other disciplines involved in urban and regional development on the local, regional and global level.

Skills and abilities

- Be able to assess and handle complexities of urban development in a local and regional perspective and relate them to their social, economical, environmental and political context.
• Be able to carry out advanced studies on contemporary problems, opportunities and future wants and needs, and by that contribute to the development of the field of knowledge.
• Be able to apply the aforementioned knowledge and skills in design, analysis and synthesis in urban development planning practice.

Ability to make judgements and adopt a standpoint

• Analyse the merits of theoretical concepts, policies, plans and projects.
• Be able to detect implicit normative assumptions that determine different perspectives on planning problems.
• Be able to contextualise plans, concepts and policies in different temporal, cultural and institutional backgrounds.
• Be able to reflect critically on the nature and manner of dealing with impending planning problems.

Communication

• Be able to make effective oral and written presentations of complex tasks in urban design, planning and environmental issues.
• Be able to convey own results and others viewpoints in a coherent and qualitative way through drawings, sketches, essays and oral presentations.
• Be able to use modern communication techniques and tools to illustrate and visualise plans, concepts and strategies.
• Be able to organise and lead multi-disciplinary groups with experts and contribute to the outcome of the working task.

Learning

• Be able to track developments within the discipline and analyse how these will affect planning practice.
• Be able to define needs for learning opportunities in order to improve professional capacity.

Extent and content of the programme

The Masters programme Sustainable Urban Planning and Design counts 120 hp and consists of three terms of coursework and one term for the degree project, together 2 years. The course-work encompasses a substantial share of studios and projects that aim at training students’ practical skills in planning and urban design and at gaining a better understanding of planning practice. All courses in the programme are at advanced (2ndcycle) level. The language of instruction is English.

The programme offers three tracks, Urban Planning and Design (UPD), Urban and Regional Planning (URP) and Environment and Planning (EP). The three tracks are recommended combinations of courses which represent separate professional competences that are involved in urban planning and regional development. By merging these professional competences into one programme, graduates acquire a comprehensive understanding of the planning process, the actors involved, and the aesthetical, social, economic, institutional and environmental determinants that contribute to the development of a sustainable society.

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. Students in their final year of their undergraduate education may also apply and if qualified, receive a conditional acceptance. In addition, applicant must provide a proof of their proficiency in English. KTH accepts a TOEFL test score of a minimum of 550 (213 in the computer-based test, 79 in the internet based test) or an IELTS score of at least 6.0, no band lower than 5.0 (both general and academic accepted). English proficiency tests are waived for applicants with English as language of instruction (minimum 3 years of full-time higher education studies).

The specific admission requirement for students that apply for the programme Sustainable Urban Planning and Design is a completed Bachelor’s degree in architecture or landscape architecture, civil engineering in the built environment, energy and environment or equivalent, urban and regional planning, social or natural sciences relevant to the scope of the programme. The previous study should comprise at least 30 hp in the field of urban design, urban, transport or regional planning, national/ regional economy or environmental sciences.

The selection process for the Masters programme Sustainable Urban Planning and Design is based on a total evaluation of the following selection criteria: university, grade point average (GPA), relevant academic courses, motivation letter and working experience. For students with a degree in architecture or landscape architecture, the portfolio is considered in the selection process.

Admission to the programme does not involve that each student is eligible to register for all courses within the programme. Some of the courses have specific pre-requisites which either relate to other courses within the master programme or to the student's previous studies. However, all students are offered combinations of courses which correspond to full-time studies in each semester.

**Implementation of the education**

**Structure of the education**

The academic year is 40 weeks and is divided into two semesters, autumn and spring. Each semester consists of two study periods.
For information on the extent of the school year, the exam and re-examination periods perioder cited http://www.kth.se/student/schema.

The first term starts with a common introduction for all tracks in Sustainable Planning and Design. In the second period a number of primary courses are offered which provide core knowledge for the tracks. The second and third term comprise courses that provide students with deeper knowledge and skills in the tracks. The Urban Planning and Design (UPD) track consists of a series of studios in which students practice their design skills. The Urban and Regional Planning (URP) track offers courses with a focus on analysis, conceptualisation and implementation of development potentials for cities and regions. The Environment and Planning track (EP) also offers courses with a focus on analysis, conceptualisation and implementation, but in the field of environmental policy making, planning, scenario building or sustainability assessments. Each of the tracks includes a project in the third term. The third term includes an interdisciplinary project in which students apply the skills and knowledge that are gained in the programme. The programme concludes with a Master’s Degree project in which students address selected problems within the scope of the programme.
Courses

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

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.

Conditions for participation in the programme

A prerequisite for studying at KTH is that every term, students must enrol in their courses and register for the term.

Registration for courses requires course selection in LADOK (student registry). Course selection is done either through the course selection web application or through the student’s educational office. After admission, Students should register themselves within one week after course start. Students wishing to drop the course should notify the department that is giving the course.

Recognition of previous academic studies

Students may request to be given credit for a course/courses from another college/university within or outside Sweden. KTH’s policy for recognising previous academic studies is available in full in KTH’s regulations at www.kth.se.

Studies abroad

This programme offers opportunities to study abroad. In order to be eligible for studies abroad within the framework of any exchange agreement with foreign universities, students should be enrolled at KTH, have completed at least two years of studies, and be keeping pace with their studies.

Selection is based on weighted average grades in compulsory courses.

For more information, refer to KTH’s regulations at http://intra.kth.se/regelverk/utbildning-forskning/grundutbildning/utbytesstudier.

Degree project

The degree project comprises 30hp and provides students with the opportunity to in-vesti-gate a problem in depth under the supervision of experienced practitioners and researchers. The programme offers degree projects within three alternative field of studies; Urban Planning and Design, Regional Planning, and Environmental Strategic Analysis. If a student intends to carry out a degree project within another field of studies, he/she should apply for exemption.

The degree project is graded on a scale A-F, where A-E are passing grades with A as the highest grade. The grading of degree projects is based on an overall assessment of working process, scientific contents and presentation.
Degree

To obtain the master's degree students must have passed courses of at least 120 higher education credits, of which the following must be included:

- at least 90 higher education credits from courses on the second level that are included in the master programme (including the master thesis of 30 higher education credits), and at least 15 additional credits from courses in any engineering area
- a maximum of 15 higher education credits of entirely elective courses;
- an approved course in Theory and Methodology of Science.

In the event that the master's program is a final part of the degree programme in Civil Engineering and Urban Management or of the degree programme in Energy and Environment, there may be additional requirements according to the corresponding study programmes. For example, a master of science degree in the above degree programmes should include mathematics and science subjects for a minimum of 45 higher education credits.

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

Master's Programme, Sustainable Urban Planning and Design, 120 credits (THSSM), Programme syllabus for studies starting in autumn 2013

General courses

Year 1

Mandatory courses (22.5 Credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG2126</td>
<td>Theory of Science and Research Methodology for Planning and Design</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>AG2805</td>
<td>Sustainable Planning and Design</td>
<td>15.0 hp</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

Supplementary information

The first term starts with a common introduction for all tracks in Sustainable Planning and Design. In the second period a number of primary courses are offered which provide core knowledge for the tracks. The second and third term comprise courses that provide students with deeper knowledge and skills in the tracks. The Urban Planning and Design (UPD) track consists of a series of studios in which students practice their design skills. The Urban and Regional Planning (URP) track offers courses with a focus on analysis, conceptualisation and implementation of development potentials for cities and regions. The Environment and Planning track (EP) also offers courses with a focus on analysis, conceptualisation and implementation, but in the field of environmental policy making, planning, scenario building or sustainability assessments. Each of the tracks includes a project in the third term. The third term includes an interdisciplinary project in which students apply the skills and knowledge that are gained in the programme. The programme concludes with a Master’s Degree project in which students address selected problems within the scope of the programme.

Year 2

Conditionally elective courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
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<tbody>
<tr>
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</tbody>
</table>
AD2863  Sustainable Urban Planning and Design Studio 2.1- Urban Ecologies 22.5 hp  Second cycle
AD2UPX  Degree Project in Urban Planning and Design, Second Cycle 30.0 hp  Second cycle
AG211X  Degree Project in Urban and Regional Planning, Second Cycle 30.0 hp  Second cycle
AG2129  Project Sustainable Urban Planning - Strategies for Urban and Regional Development 15.0 hp  Second cycle
AG2130  Applied Urban and Regional Analysis 7.5 hp  Second cycle
AG2134  Contemporary Urban Theory, Advanced Course 7.5 hp  Second cycle
AG2803  Ecosystem Support and Environmental Justice 7.5 hp  Second cycle
AG2809  Project Sustainable Urban Planning - Assessments, Plans and Processes 15.0 hp  Second cycle
AG280X  Degree Project in Environmental Strategies, Second Cycle 30.0 hp  Second cycle
AG2811  Planning for Resilience 7.5 hp  Second cycle

Track, Urban and Regional Planning (HSSA)

Year 1

Recommended courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD2865</td>
<td>Introduction to Urban Economics</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AG2116</td>
<td>City Networks in Regional Contexts</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AG2127</td>
<td>Planning Theory and Urban Governance</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AG2128</td>
<td>Urban Development and Planning</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AG2171</td>
<td>Futures Studies and Forecasts</td>
<td>7.5 hp  Second cycle</td>
</tr>
</tbody>
</table>

Track, Urban Planning and Design (HSSB)

Year 1

Recommended courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD2861</td>
<td>Sustainable Urban Planning and Design Studio 1.1- Textures</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AD2862</td>
<td>Sustainable Urban Planning and Design Studio 1.2- Situations</td>
<td>15.0 hp  Second cycle</td>
</tr>
<tr>
<td>AD2865</td>
<td>Introduction to Urban Economics</td>
<td>7.5 hp  Second cycle</td>
</tr>
<tr>
<td>AG2125</td>
<td>Defining the Elements of Urbanism</td>
<td>7.5 hp  Second cycle</td>
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</table>

Track, Environment and Planning (HSSC)
Year 1

Recommended courses

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE2507</td>
<td>Strategic Environmental Assessment</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>AG2127</td>
<td>Planning Theory and Urban Governance</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>AG2171</td>
<td>Futures Studies and Forecasts</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>AG2804</td>
<td>Transport, Communication and Sustainable Development</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>AG2806</td>
<td>Environmental Aspects of the Built Environment</td>
<td>7.5 hp</td>
<td>Second cycle</td>
</tr>
</tbody>
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Appendix 2: Specialisations

Master's Programme, Sustainable Urban Planning and Design, 120 credits (THSSM), Programme syllabus for studies starting in autumn 2013

Track, Urban and Regional Planning (HSSA)
Track, Urban Planning and Design (HSSB)
Track, Environment and Planning (HSSC)