Programme syllabus

Master's Programme, Industrial Management, 120 credits
Masterprogram, industriell ekonomi
120.0 credits

Valid for students admitted to the education from autumn 10 (HT - Autumn term; VT - Spring term).

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

Programme objectives

Beyond the goals which are specified in the Higher Degree Ordinance, there are also specific goals for this programme.

A graduate from the Industrial Management programme must:

Knowledge and understanding

- Show a deep knowledge about the area Industrial Management as a complement to, and a continuation of the earlier acquired technical and natural scientific knowledge
- Show a deep knowledge about establishing, managing, planning, following-up, development, and termination of, foremost, industrial/technically intensive companies and other organisations based on strategic choices and how these choices affect the organisation efficiency and its stakeholders support and exchange
- Show a deep knowledge about scientific tools used to analyse, calculate, work with and evaluate facts, and about how knowledge develops in the region between technology, natural science and social science.

Skills and abilities

- Show the ability to, through perspective adoption, constructively and creatively reflect over, handle and solve technical, economical and organisational problems in industrial/technically-intensive organisations each for their own as well as together and then also be able to set certain organisation and technologies in a large organisational and international context.
- Show the ability to utilise theories, individually and in groups, within industrial management in practical situations with regards to technical and natural scientific aspects and with regards taken to relevant scientific, professional and social judgements and approaches
- Show the individual ability to handle economic and management models and the ability to theoretically and practically analyse problems within the area of Industrial Economy
- Show preparations for a successful completion of planning and management-related assignment on different levels within modern and future industrial/technically intensive companies individually and in groups

Ability to make judgements and adopt a standpoint

- Show a reflective approach with regards to responsibility, ethics, equality, global balance, gender equality and ecological balance which are the conditions for today’s and tomorrow’s business organisations
- Show an analytical ability for a reflexive and critical thought process in relation to the established theories and practices, and to how knowledge develops within natural science, technology and social science

KTH’s local degree ordinance can be found in KTH’s guidelines www.kth.se
**Extent and content of the programme**

The programme comprises 120 higher education credits which correspond to two years of full-time study. The programme is primarily in the second cycle.

The language of instruction in the programme is English.

**Selectable tracks:**

- For students who intend to complete a Master of Science in Engineering degree, a specialisation is offered in the second cycle within Industrial Management and respective technology specialisations.
- For students who only intend to complete a Master’s programme (Two Years), more extensive specialisation possibilities in a number of profile areas within Industrial Management are offered.

During the second year, all students take a specialisation course within Industrial Management where the intention is to deepen and integrate different parts within the subject area based on the implementation of an extensive industrial project.

**Eligibility and selection**

In order to be eligible for the Master’s programme, a relevant higher education degree comprising 180 higher education credits is required. In case the first level courses are not finished, an exemption to the normal rules may be made. See KTH’s admission ordinance, which can be found in KTH’s guidelines, www.kth.se

Required special qualifications: A) A technical Bachelor degree in Mechanical Engineering, Information and Communication Technology, Computer Science and Engineering, Materials Science and Engineering (or equivalent) including a basic course in Industrial Management, or B) the required specific qualification may be obtained with another corresponding technical degree. Furthermore, for all KTH’s programmes with English as the language of instruction, there is a special requirement of English B or corresponding knowledge.

Credit scores are based on the average grades obtained from previous academic studies. Candidates within Swedish Master Programs in Engineering (civilingenjörsprogram) are allowed 1 (one) additional point, which is added to the average grades.

Selection: the candidates are placed in two different groups based on their required special qualification (A or B). In group 1 candidates are admitted from matching required special qualifications of A). In group 2 candidates are admitted matching required special qualifications of B). Candidates will be admitted starting from the top of the credit score list within respective selection groups. Candidates within group 1 will be admitted first. Candidates from group 2 will then be admitted to the remaining places.

For more information, refer to KTH’s degree ordinance which can be found in KTH’s guidelines, www.kth.se

**Implementation of the education**

**Structure of the education**

Study years, terms, and study periods are described in KTH’s guidelines, www.kth.se

The structure of the programme is adapted for two specialisations to provide the possibility to either complete a Master of Science in Engineering degree and/or a Master’s degree (Two Years) within Industrial Management.

*Track structure for the Master of Science in Engineering with Masters Degree (two years) within Industrial Management*
The programme starts with a course package with provides a solid foundation within the area of Industrial Management. Upon that, a package of optional courses provides requisite courses within technology and Industrial Management in the second cycle with the intention of completing a Master of Science in Engineering within the respective programmes at KTH. This course package is mainly taken in terms 1 and 2.

Track structure for the Masters degree (two years) within Industrial Management

The programme starts with a course package with provides a solid foundation within the area of Industrial Management. Upon that, a package of optional courses provides continued knowledge development within the area of Industrial Management. Within the optional course package, coherent courses are provided for profiling and research preparation within the subject area of Industrial Management. These course packages are mainly taken during terms 1 and 2.

Common for both specialisations, a continuation course given during term 3 comprising 12 higher education credits within the area of Industrial Management is given, where the focus is the execution of an extensive industrial project and preparations for the degree project.

The degree project should address a problem within the area between Industrial Management and technology or natural science with a relation to the student’s own chosen focus area.

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

Term enrolment

A condition in order to participate in the studies is that the student, each spring and autumn, enrols for the coming term.

By completing term enrolment, the student has confirmed their intention to study and participate in the programme. Only after that may the student be able to:

• Register for the term
• Register for courses
• Get reported results

Course registration

Registration for courses within the programme is done by the student before the start of each term, according to KTH’s central guidelines.

Conditions for participation in the programme

For studies in year 2:

At least 45 higher education credits must be completed from study year 1 by the end of the examination period in August. Students who have not fulfilled this requirement must, in collaboration with a study adviser, create an individual study plan. The main intent with the individual study plan is that the student will complete the remaining elements during the next coming study year. In the study plan, the remaining elements should be included as well as suitable courses from the next study year. Special consideration should be given to the courses’ prerequisites.

Selection of track

This is done during programme registration.
**Recognition of previous academic studies**

The student has the possibility to apply for recognition of previous academic studies from course(s) from another university or higher education institution, national or international.

KTH’s entire policy for recognition of previous academic studies can be found in KTH’s guidelines [www.kth.se](http://www.kth.se).

**Studies abroad**

Possibility for studies abroad is given, preferably in relation to the degree project.

**Degree project**

KTH’s rules for the degree project can be found in KTH’s guidelines. Generally, it is required that a main portion of the studies must be completed before starting the degree project.

**Degree**

In order to earn the Degree of Master of Science (Two Years), passing grades in all courses which are included in the student’s study plan are required. The study plan must comprise 120 higher education credits which include a degree project consisting of 30 higher education credits, in the second cycle.

KTH’s local degree ordinance can be found at [http://intra.kth.se/regelverk/](http://intra.kth.se/regelverk/)

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

Master's Programme, Industrial Management, 120 credits (TINEM), Programme syllabus for studies starting in autumn 2010

General courses

Year 1

Mandatory courses (42.0 credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME2016</td>
<td>Project Management: Leadership and Control</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2063</td>
<td>Team Leadership and Human Resource Management</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2064</td>
<td>Finance and Control in Industrial Organizations</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2065</td>
<td>Operations and Supply Chain Strategy</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2066</td>
<td>Strategy and Industrial Marketing</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2067</td>
<td>Industrial Transformation and Technical Changes (ITTEC)</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2501</td>
<td>Perspectives on Industrial Management</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

Year 2

Mandatory courses (25.5 credits)

<table>
<thead>
<tr>
<th>Course code</th>
<th>Course name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME2001</td>
<td>Research Methods in Industrial Engineering and Management</td>
<td>7.5</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2069</td>
<td>Managing Research and Innovation</td>
<td>6.0</td>
<td>Second cycle</td>
</tr>
<tr>
<td>ME2502</td>
<td>Change Project in Industrial Management</td>
<td>12.0</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Appendix 2: Specialisations

Master's Programme, Industrial Management, 120 credits (TINEM), Programme syllabus for studies starting in autumn 2010

This programme has no specialisations.