



Programme syllabus

Degree Programme in Mechanical Engineering

Civilingenjörsutbildning i maskinteknik

300.0 credits

Valid for students admitted to the education from autumn 09 (HT - Autumn term; VT - Spring term).

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

Programme objectives

Beyond the objectives that are specified in the Higher Education Ordinance, a graduate from the programme will...

Knowledge and understanding

- Have a broad technical and scientific base to be able to work in several technical areas with product development, production, and manufacturing or energy issues. More specifically, be familiar with choice of materials, energy sources, production methods or assessment of economical or environmental consequences, etc.
- Show a broad aptitude in the chosen technical area, including knowledge in mathematics and sciences, as well as a deeper knowledge in certain parts of the study area.

Skills and abilities

- Be able to apply knowledge and abilities in a practical environment while making relevant assessments and taking standpoints scientifically, professionally and socially, both in a group as well as independently
- Show a good ability to analyze, formulate and handle technical problems while considering the problem from beginning to end: from the ideas or requirements to specification, development, operation and finally, termination. Moreover, the ability to define, determine resource demand and lead processes to problem-solution and realisation.
- Show certain abilities to lead activities on different organisational levels, in different types of organisational life-cycle stages and different types of business logic.
- Have individual and professional skills such as language, leadership, project-management and communication for work as an engineer in a leadership position or as a leader in a technically intensive company.
- Have a basic understanding of entrepreneurial activities

Ability to make judgements and adopt a standpoint

- Have especially good understanding that engineering-related problems are often complex, incompletely defined and sometimes contain contradictions
- Show an reflecting attitude to responsibility and ethics in relation to technical, organisational, economical, ecological and societal activities.

The local degree ordinance of the Royal Institute of Technology can be found in the KTH-Regulations. intra.kth.se/regelverk

Extent and content of the programme

The programme consists of 300 credits which correspond to five years of full-time studies.

Master's programmes leading to Master of Science in Engineering degree:

- Aerospace Engineering
- Vehicle Engineering
- Sustainable Energy Engineering
- Industrial Management
- Integrated Product Design
- Production Engineering Management
- Engineering Design
- Nuclear Energy Engineering
- Mathematics (Track Mathematical statistics and financial mathematics, Track Computational mathematics and Track Optimization and systems theor)
- Naval Architecture
- Sustainable Technology
- Engineering Mechanics

The language of instruction in the first cycle is mainly Swedish.

The language of instruction in the second cycle is mainly English.

Eligibility and selection

In order to study at KTH, basic eligibility requirements must be fulfilled. In addition, the following special eligibility requirements must be fulfilled for Masters of Science in Engineering programmes at KTH:

Mathematics course D, Physics course B and Chemistry course A or the corresponding equivalents. All of the courses must have been completed with at least a grade of pass (godkänd) or 3. If the applicant refers to other studies or work experiences that may show competences then they will be assessed accordingly.

More information regarding KTH's admission policy can be found in the KTH-Regulations. intra.kth.se/regelverk

Implementation of the education

Structure of the education

Structure of the Programme

Academic year, terms, and study periods can be found in the KTH-Regulations intra.kth.se

Study years 1-3, studies in the first-cycle

The study programme consists of the mandatory courses in years 1-3 in the first-cycle (G), and a Master's Programme in the second-cycle (A) in years 4 and 5, which concludes with a 30 credits degree project.

The programme is organised around courses in the mathematical, technically scientific and technical applied subjects. The education in and usage of professional skills and abilities of significant importance for a Master of Science in Engineering, for example: communication, ethics, entrepreneurship, sustainable development, company- and societal aspects, are integrated into the courses.

In order to make the programme comprehensive, collaboration is emphasized between the different subjects and throughout the entire programme. The courses are scheduled and coordinated in such a way that this is reached through common project work and hand-in assignments, etc.

The programme is structured in such a way that a student can choose to get a Degree of Bachelor of Science in Engineering after three years of study. This makes it possible for students to continue their studies abroad or at other universities in Sweden.

Mathematically natural science courses

Most of the courses in basic mathematical and natural science are in the first year. The remainder is placed in the second year.

Technical courses

Throughout years 1-3, the student will study basic technical scientific courses in Mechanical Engineering such as strength of materials and solid mechanics, thermodynamics, construction, and production.

The first three years conclude with a 15 credits of degree project for the Degree of Bachelor of Science in Engineering in the chosen technical area. After completing 180 credits, the students can apply for the Degree of Bachelor of Science in Engineering if the degree requirements are fulfilled.

Study years 4-5, studies in the second cycle

The Master programme consists mainly of advanced courses and ends with a degree project work within one specific technical scientific area. Students in the Mechanical Engineering programme can choose between a wide range of Masters with set study plans. The student is guaranteed a place on their chosen master.

The knowledge about the environment and sustainable development is deepened and solidified by being integrated into the programme's courses with special focus on for example: life-cycle analysis, environmental effects and choice of material, which is associated with the chosen Master programme.

Master's programmes leading to Master of Science in Engineering degree:

- Aerospace Engineering
- Vehicle Engineering
- Sustainable Energy Engineering
- Industrial Management
- Integrated Product Design
- Production Engineering Management
- Engineering Design
- Nuclear Energy Engineering
- Mathematics (Track Mathematical statistics and financial mathematics, Track Computational mathematics and Track Optimization and systems theor)
- Naval Architecture
- Sustainable Technology
- Engineering Mechanics

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 and Course Application

A prerequisite to be allowed to participate in the studies is that the student verifies enrollment for courses the coming term every spring and fall. This is done via www.antagning.se between the 1st and 15th of November and the 1st and 15th of May.

By verifying his/her enrolment, the student has submitted his/her intention to continue studying and participating in the programme. After that it is possible for the student to:

- registered for courses

- have results reported
- have the possibility to receive financial support from CSN

Conditions for participation in each year of the programme

For studying in year 2:

At least 45 credits from year 1 must be completed by the end of the exam period in August. Students who don't fulfill this requirement must design an individual study plan with a guidance officer.

For studying in year 3:

At least 90 credits from years 1 and 2 must be completed by the end of the exam period in August. Students who don't fulfill this requirement must design an individual study plan with a guidance officer.

For studying in year 4:

At least 150 credits from years 1-3, including a degree project, 15 credits, must be completed by the end of the exam period in August. Students who don't fulfill this requirement must design an individual study plan with a guidance officer.

For studying in year 5:

At least 195 credits from years 1, 2, 3 and 4 of which at least 45 credits from year 4 must be completed by the end of the exam period in August. Students who don't fulfill this requirement must design an individual study plan with a guidance officer.

Selection of Master programmes

In preparation for year 4, second cycle, the student chooses a master programme within their Master of Science in Engineering degree programme. This is done between the 1st and 15th of May. The choice of master programme within their Master of Science in Engineering degree programme for the fall 2012 is done according to the instruction provided by the Students Office within the University administration at KTH. Apart from the basic eligibility requirements for study in the second cycle (year 4) each master has specific requirements. The evaluation of the basic and specific requirements is made by the Students office within the University administration at KTH.

Recognition of previous academic studies

The student has the possibility to apply to receive credit for results from previous studies at another university within the country or abroad.

KTH's policy for receiving credit from previous academic studies is available in its entirety in the KTHs Regulations. intra.kth.se/regelverk

Studies abroad

Students in the Program have the possibility to study abroad through the contracts KTH has with universities within EU and outside. Exchange studies can normally not be done in the first or second year. It is also possible to do the degree project work abroad.

The application deadline for studies abroad is around January 15th.

Degree project

The degree project consists of 30 credits.

Students are required to have a minimum of 240 credits within the programme before beginning the degree project.

KTH's rules for the degree project are available in the KTH-Regulations intra.kth.se/regelverk

Degree

In order to graduate as a Master of Science in Engineering, Degree Programme in Mechanical Engineering the student must be approved in every course that is included in the student's study plan. The study plan must consist of 300 credits including 30 credits of degree project work.

Reference to the local degree policy is available in the KTH-Regulations.

[Appendix 1 - Course list](#)

[Appendix 2 - Programme syllabus descriptions](#)



Appendix 1: Course list

Degree Programme in Mechanical Engineering (CMAST), Programme syllabus for studies starting in autumn 2009

General courses

Year 1

Mandatory courses (59.5 credits)

Course code	Course name	Credits	Edu. level
DN1212	Numerical Methods and Basic Programming	9.0	First cycle
MJ1102	Mechanical Engineering	10.0	First cycle
SF1624	Algebra and Geometry	7.5	First cycle
SF1625	Calculus in One Variable	7.5	First cycle
SF1626	Calculus in Several Variable	7.5	First cycle
SG1130	Mechanics I	9.0	First cycle
SK1112	Physics I	9.0	First cycle

Recommended courses

Course code	Course name	Credits	Edu. level
SF1611	Introductory Course in Mathematics I	1.5	First cycle

Year 2

Mandatory courses (60.0 credits)

Course code	Course name	Credits	Edu. level
MF1016	Basic Electrical Engineering	9.0	First cycle
MF1044	Machine Components	6.0	First cycle
MG1024	Production	6.0	First cycle
MH1004	Engineering Materials	6.0	First cycle

Course code	Course name	Credits	Edu. level
MJ1112	Applied Thermodynamics	9.0	First cycle
SE1010	Solid Mechanics, Basic Course with Project	12.0	First cycle
SF1633	Differential Equations I	6.0	First cycle
SG1140	Mechanics II	6.0	First cycle

Year 3

Year 4

Year 5

Master, Aerospace Engineering (AEE)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SE1025	FEM for Engineering Applications	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle
SG1217	Fluid Mechanics, Basic Course <i>SG1217 or SG1220</i>	6.0	First cycle
SG1220	Fluid Mechanics for Engineers <i>SG1217 or SG1220</i>	6.0	First cycle

Recommended courses

Course code	Course name	Credits	Edu. level
EL1120	Automatic Control, General Course	6.0	First cycle
SF1901	Probability Theory and Statistics	6.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme:

<http://www.kth.se/student/kurser/program/taeem/ht12/>

Year 5

Supplementary information

Course list: För kurslistan: <http://www.kth.se/student/kurser/program/TAEEM/HT12/arskurs2?l=en>

Master, Vehicle Engineering (FOR)

Year 1

Year 2

Year 3

Mandatory courses (36.0 credits)

Course code	Course name	Credits	Edu. level
EL1000	Automatic Control, General Course	6.0	First cycle
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SD1115	Fundamentals of Noise and Vibration Control <i>Year 3 or 4</i>	6.0	First cycle
SG1217	Fluid Mechanics, Basic Course <i>Year 3 or 4</i>	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tform/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TFORM/HT12/arskurs2?l=en>

Master, Industrial Management (INE)

Year 1

Year 2

Year 3

Mandatory courses (30.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
ME2015	Project Management: Leadership and Control	6.0	Second cycle
ME2063	Team Leadership and Human Resource Management	6.0	Second cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MG101X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Supplementary information

One technical course must be taken, at least 6 hp

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tinem/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TINEM/HT12/arskurs2?l=en>

Track, Industrial Design (IPDA)

Year 1

Year 2

Year 3

Mandatory courses (30.0 credits)

Course code	Course name	Credits	Edu. level
HM1025	Ergonomics in Product Development	6.0	First cycle
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1025	Model Based Product Development II	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MF118X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tipdm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPDM/HT12/arskurs2>

Track, Concurrent Engineering (IPDB)

Year 1

Year 2

Year 3

Mandatory courses (30.0 credits)

Course code	Course name	Credits	Edu. level
HM1025	Ergonomics in Product Development	6.0	First cycle

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
ME2063	Team Leadership and Human Resource Management	6.0	Second cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MF111X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tipdm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPDM/HT12/arskurs2>

Track, Product Innovation (IPDD)

Year 1

Year 2

Year 3

Mandatory courses (18.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Year 4

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPDM/HT12/arskurs2>

Track, Combustion Engineering (IPUA)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
MJ1401	Heat Transfer	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MF101X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MF103X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MF106X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MF111X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MG101X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MJ140X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MJ150X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
SA108X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
SG1217	Fluid Mechanics, Basic Course <i>SG1217 or SG1220</i>	6.0	First cycle
SG1220	Fluid Mechanics for Engineers <i>SG1217 or SG1220</i>	6.0	First cycle

Supplementary information

One degree project must be taken

Year 4

Supplementary information

Year 4 and 5, please see the master programme:

<http://www.kth.se/student/kurser/program/tipum/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPUM/HT12/arskurs2>

Track, Machine Design (IPUB)

Year 1

Year 2

Year 3

Mandatory courses (45.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF103X	Degree Project in Mechanical Engineering, First Cycle <i>MF103X is mandatory for the Machine Design track</i>	15.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MF2018	Tribology	6.0	Second cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SE1025	FEM for Engineering Applications	6.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme:

<http://www.kth.se/student/kurser/program/tipum/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPUM/HT12/arskurs2>

Track, Mechatronics (IPUC)

Year 1

Year 2

Year 3

Mandatory courses (33.0 credits)

Course code	Course name	Credits	Edu. level
DD1321	Applied Programming and Computer Science	9.0	First cycle

Course code	Course name	Credits	Edu. level
EL1120	Automatic Control, General Course <i>Can be taken in period 1</i>	6.0	First cycle
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MF106X	Degree Project in Mechanical Engineering, First Cycle <i>One Degree project within Mechanical Engineering must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme:
<http://www.kth.se/student/kurser/program/tipum/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TIPUM/HT12/arskurs2>

Master, Naval Architecture (MRS)

Year 1

Year 2

Year 3

Mandatory courses (18.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle
SG1217	Fluid Mechanics, Basic Course <i>SG1217 or SG1220</i>	6.0	First cycle
SG1220	Fluid Mechanics for Engineers <i>SG1217 or SG1220</i>	6.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme:
<http://www.kth.se/student/kurser/program/tmrsm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TMRSM/HT12/arskurs2?l=en>

Master, Mathematics (MTH)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SF1901	Probability Theory and Statistics	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MF101X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MF103X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MF106X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle

Course code	Course name	Credits	Edu. level
MF111X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MG101X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MJ140X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
MJ150X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
SA108X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle
SF1632	Complementary Course in Differential Equations and Transforms	3.0	First cycle
SF1904	Markov Processes, Basic Course	3.0	First cycle

Supplementary information

One degree project in Mechanical engineering must be made.

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/TMTHM/HT12/arskurs1>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TMTHM/HT12/arskurs2>

Master, Nuclear Energy Engineering (NEE)

Year 1

Year 2

Year 3

Mandatory courses (18.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SG1217	Fluid Mechanics, Basic Course <i>SG1217 or SG1220</i>	6.0	First cycle

Course code	Course name	Credits	Edu. level
SG1220	Fluid Mechanics for Engineers	6.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tneem/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TNEEM/HT12/arskurs2>

Master, Production Engineering and Management (PRM)

Year 1

Year 2

Year 3

Mandatory courses (30.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1001	Manufacturing	6.0	First cycle
MG1002	Automation Technology	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MG101X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tprmm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TPRMM/HT12/arskurs2?l=en>

Master, Sustainable Energy Engineering (SUE)

Year 1

Year 2

Year 3

Mandatory courses (36.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
MJ1401	Heat Transfer	6.0	First cycle
MJ2424	Computational Methods in Energy Technology <i>Can be taken during year 3 or 4</i>	6.0	Second cycle
SG1220	Fluid Mechanics for Engineers	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MJ140X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tsuem/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TSUEM/HT12/arskurs2?l=en>

Master, Sustainable Technology (SUT)

Year 1

Year 2

Year 3

Mandatory courses (30.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
MJ2611	Introduction Industrial Ecology	6.0	Second cycle
MJ2613	Sustainable Development	6.0	Second cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
MJ150X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/tsutm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TSUTM/HT12/arskurs2?l=en>

Track, Fluid Mechanics (TEMA)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle

Course code	Course name	Credits	Edu. level
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SG1220	Fluid Mechanics for Engineers	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/ttemm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TTEMM/HT12/arskurs2>

Track, Solid Mechanics (TEMB)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SE1025	FEM for Engineering Applications <i>Can be taken in period 1 taught in English</i>	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle	15.0	First cycle

Course code	Course name	Credits	Edu. level
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One degree project must be chosen

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/ttemm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TTEMM/HT12/arskurs2>

Track, Sound and Vibrations (TEMC)

Year 1

Year 2

Year 3

Mandatory courses (24.0 credits)

Course code	Course name	Credits	Edu. level
ME1003	Industrial Management, Basic Course	6.0	First cycle
MF1045	Product realization - Engineering Design	6.0	First cycle
MG1025	Product Realization - Manufacturing	6.0	First cycle
SD1115	Fundamentals of Noise and Vibration Control	6.0	First cycle

Conditionally elective courses

Course code	Course name	Credits	Edu. level
SA108X	Degree Project in Mechanical Engineering, First Cycle <i>One degree project must be chosen</i>	15.0	First cycle

Year 4

Supplementary information

Year 4 and 5, please see the master programme: <http://www.kth.se/student/kurser/program/ttemm/ht12/>

Year 5

Supplementary information

Course list: <http://www.kth.se/student/kurser/program/TTEMM/HT12/arskurs2>



Appendix 2: Specialisations

Degree Programme in Mechanical Engineering (CMAST), Programme syllabus for studies starting in autumn 2009

Master, Aerospace Engineering (AEE)

Master, Vehicle Engineering (FOR)

Master, Industrial Management (INE)

Track, Industrial Design (IPDA)

Track, Concurrent Engineering (IPDB)

Track, Product Innovation (IPDD)

Track, Combustion Engineering (IPUA)

Track, Machine Design (IPUB)

Track, Mechatronics (IPUC)

Master, Naval Architecture (MRS)

Master, Mathematics (MTH)

Master, Nuclear Energy Engineering (NEE)

Master, Production Engineering and Management (PRM)

Master, Sustainable Energy Engineering (SUE)

Master, Sustainable Technology (SUT)

Track, Fluid Mechanics (TEMA)

Track, Solid Mechanics (TEMB)

Track, Sound and Vibrations (TEMC)