

Energy-Environment-Management

300 credits

Civilingenjör i energi - miljö - management

6CEMM

Valid from: 2014 Spring semester

Determined by Faculty Board of Institute of Technology

Date determined

Entry requirements

Degree in Swedish Civilingenjör 300 hp och Teknologie master 120 hp



Curriculum

Semester 6 (Spring 2017)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TAMS11 | Probability and Statistics, first course | 6 | G2X | 1 | С |
| TEIO28 | Integrated Project Management | 6* | G2X | 3 | С |
| TKMJ41 | Bachelor Thesis - Energy and Environment Engineering | 18* | G2X | 4 | С |
| THFR05 | Communicative French | 6* | G1X | 4 | E |
| THSP05 | Spanish | 6* | G1X | 4 | E |
| THTY05 | German | 6* | G1X | 4 | E |
| Period 2 | | | | | |
| TEIO28 | Integrated Project Management | 6* | G2X | 3 | С |
| TKMJ41 | Bachelor Thesis - Energy and Environment Engineering | 18* | G2X | 4 | С |
| THFR05 | Communicative French | 6* | G1X | 4 | E |
| THSP05 | Spanish | 6* | G1X | 4 | E |
| THTY05 | German | 6* | G1X | 4 | E |

Semester 7 (Autumn 2017)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TDEI09 | Strategic Application of IT: E-business and Knowledge Management | 6 | A1X | 4 | E |
| TEIM11 | Industrial Marketing | 6 | G2X | 3 | E |
| TEIO19 | Industrial Management | 6 | G2X | 4 | E |
| TEIO90 | Innovation Management | 6 | A1X | 2 | E |
| TGTU91 | Oral and Written Communication | 6 | G1X | 2 | E |
| TKMJ38 | Industrial Symbiosis | 6 | A1X | 1 | E |
| TMES27 | Modelling of Energy Systems | 6 | A1X | 3 | E |
| TMHL22 | Solid Mechanics | 6 | G2X | 3 | E |
| TMHP02 | Fluid Power Systems | 6 | G2X | 2 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| TMKM16 | Materials Selection and Optimization | 6 | A1X | 4 | E |
| TMKT78 | Product Development | 6 | G2X | 2 | E |
| Period 2 | | | | | |
| TMES45 | Energy Planning and Modelling of Communities | 6 | A1X | 4 | С |
| TAOP61 | Optimization of Realistic Complex Systems | 6 | A1X | 3 | E |
| TATA71 | Ordinary Differential Equations and Dynamical Systems | 6 | G2X | 3 | E |
| TEAE09 | Environmental Law | 6 | G1X | 4 | E |
| TEIE42 | Industrial Sales Management | 6 | A1X | 4 | E |
| TEIM10 | Industrial Service Development | 6 | A1X | 2 | E |
| TETS27 | Supply Chain Logistics | 6 | A1X | 2 | E |
| TGTU04 | Leadership | 6 | G2X | 2 | E |
| TGTU49 | History of Technology | 6 | G1X | 3 | E |
| TKMJ39 | Resource Efficient Products and Production | 6 | G2X | 1 | E |
| TMES45 | Energy Planning and Modelling of Communities | 6 | A1X | 4 | E |
| TMES45 | Energy Planning and Modelling of Communities | 6 | A1X | 4 | E |
| TMES51 | International Energy Markets | 6 | A1X | 1 | E |
| TMKM17 | Polymer Materials | 6 | A1X | 2 | E |
| TMMI39 | Engineering Mechanics, Advanced Course | 6 | G2X | 2 | E |
| TMMI39 | Engineering Mechanics, Advanced Course | 6 | G2X | 2 | E |
| TMMS07 | Biomechanics | 6 | A1X | 4 | E |
| TMMS07 | Biomechanics | 6 | A1X | 4 | E |
| TMMS07 | Biomechanics | 6 | A1X | 4 | E |
| TMMV18 | Fluid Mechanics | 6 | A1X | 2 | E |
| TMMV54 | Computational Heat Transfer | 6 | A1X | 1 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV | | |
|--|---|---------|-------|---------------------|-----|--|--|
| Period 1 | | | | | | | |
| TEIM11 | Industrial Marketing | 6 | G2X | 3 | С | | |
| TEIO19 | Industrial Management | 6 | G2X | 4 | С | | |
| TEIO90 | Innovation Management | 6 | A1X | 2 | С | | |
| TDEI09 | Strategic Application of IT: E-business and Knowledge Management | 6 | A1X | 4 | E | | |
| TETS23 | Purchasing | 6 | A1X | 2 | E | | |
| TKMJ38 | Industrial Symbiosis | 6 | A1X | 1 | E | | |
| TMKM16 | Materials Selection and Optimization | 6 | A1X | 4 | E | | |
| Period 2 | | | | | | | |
| TAOP61 | Optimization of Realistic Complex Systems | 6 | A1X | 3 | С | | |
| TEAE09 | Environmental Law | 6 | G1X | 4 | С | | |
| TEIE42 | Industrial Sales Management | 6 | A1X | 4 | E | | |
| TEIM10 | Industrial Service Development | 6 | A1X | 2 | E | | |
| TETS27 | Supply Chain Logistics | 6 | A1X | 2 | E | | |
| TKMJ39 | Resource Efficient Products and Production | 6 | G2X | 1 | E | | |
| TMMV18 | Fluid Mechanics | 6 | A1X | 2 | E | | |
| TMMV54 | Computational Heat Transfer | 6 | A1X | 1 | E | | |
| Specialisation: System Tools for Sustainable Development | | | | | | | |

Specialisation: Sustainable Business Development

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TKMJ38 | Industrial Symbiosis | 6 | A1X | 1 | С |
| TMES27 | Modelling of Energy Systems | 6 | A1X | 3 | С |
| TEIO19 | Industrial Management | 6 | G2X | 4 | E |
| Period 2 | | | | | |
| TAOP61 | Optimization of Realistic Complex Systems | 6 | A1X | 3 | С |
| TGTU04 | Leadership | 6 | G2X | 2 | E |
| TMMV54 | Computational Heat Transfer | 6 | A1X | 1 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TMKM16 | Materials Selection and Optimization | 6 | A1X | 4 | С |
| TMKT78 | Product Development | 6 | G2X | 2 | С |
| TMES27 | Modelling of Energy Systems | 6 | A1X | 3 | E |
| TMHL22 | Solid Mechanics | 6 | G2X | 3 | E |
| TMHP02 | Fluid Power Systems | 6 | G2X | 2 | E |
| Period 2 | | | | | |
| TAOP61 | Optimization of Realistic Complex Systems | 6 | A1X | 3 | С |
| TMKM17 | Polymer Materials | 6 | A1X | 2 | E |
| TMMV18 | Fluid Mechanics | 6 | A1X | 2 | E |
| TMMV54 | Computational Heat Transfer | 6 | A1X | 1 | E |
| | | | | | |

Specialisation: Technology for Sustainable Development

Semester 8 (Spring 2018)



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|--|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TEIM09 | International Business | 6 | A1X | 2 | E |
| TEIO13 | Leadership and Organizational Change | 6 | A1X | 4 | E |
| TETS57 | Logistics Analysis | 6 | A1X | 2 | E |
| TGTU59 | Responding to Global Climate Change | 6 | A1X | 3 | E |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | E |
| TMES43 | Analysis and Modelling of Industrial Energy Systems | 6 | A1X | 1 | E |
| TMKM40 | Engineering Materials - New Materials | 6 | A1X | 2 | E |
| TMQU31 | Statistical Quality Control | 6 | A1X | 2 | E |
| TSRT07 | Industrial Control Systems | 6 | A1X | 2 | E |
| Period 2 | | | | | |
| TEAE13 | Civil and Commercial Law | 6 | G1X | 2 | E |
| TEIO06 | Innovative Entrepreneurship | 6 | A1X | 2 | E |
| TEIO41 | Corporate Social Responsibility | 6 | A1X | 3 | E |
| TETS36 | Sustainable Logistics Systems | 6 | A1X | 4 | E |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | E |
| TKMJ50 | Environmental and Energy Related Policy Instruments | 6 | A1N | 1 | E |
| TMES41 | Strategic Development of Sustainable Energy Systems | 6 | A1X | 2 | E |
| ТМКМ09 | Engineering Materials for Lightweight Applications | 6 | A1X | 3 | E |
| TMKT83 | Small Scale Renewable Energy Conversion | 6 | A1X | 4 | E |
| TMMV07 | Computational Fluid Dynamics, advanced course | 6 | A1X | 4 | E |
| TMQU04 | Six Sigma Quality | 6 | A1X | 2 | E |
| TSFS11 | Electrical and Energy Technology | 6 | G2X | 4 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|--|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | С |
| TEIO13 | Leadership and Organizational Change | 6 | A1X | 4 | E |
| TETS57 | Logistics Analysis | 6 | A1X | 2 | E |
| TMQU31 | Statistical Quality Control | 6 | A1X | 2 | E |
| Period 2 | | | | | |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | С |
| ТКМЈ50 | Environmental and Energy Related Policy Instruments | 6 | A1N | 1 | С |
| TEIO41 | Corporate Social Responsibility | 6 | A1X | 3 | E |
| TETS36 | Sustainable Logistics Systems | 6 | A1X | 4 | E |
| TMQU04 | Six Sigma Quality | 6 | A1X | 2 | E |
| | | | | | |

Specialisation: Sustainable Business Development

Specialisation: System Tools for Sustainable Development

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|--|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | С |
| TMES43 | Analysis and Modelling of Industrial Energy Systems | 6 | A1X | 1 | С |
| TGTU59 | Responding to Global Climate Change | 6 | A1X | 3 | E |
| Period 2 | | | | | |
| TKMJ47 | Environmental Systems Analysis | 6* | A1N | 2 | С |
| TETS36 | Sustainable Logistics Systems | 6 | A1X | 4 | E |
| ТКМЈ50 | Environmental and Energy Related Policy Instruments | 6 | A1N | 1 | E |
| TMES41 | Strategic Development of Sustainable Energy Systems | 6 | A1X | 2 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|--|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TMKM40 | Engineering Materials - New Materials | 6 | A1X | 2 | С |
| TMMV08 | Computational Fluid Dynamics | 6 | A1X | 3 | E |
| TSRT07 | Industrial Control Systems | 6 | A1X | 2 | E |
| Period 2 | | | | | |
| TMES41 | Strategic Development of Sustainable Energy Systems | 6 | A1X | 2 | E |
| ТМКМ09 | Engineering Materials for Lightweight Applications | 6 | A1X | 3 | E |
| TMKT83 | Small Scale Renewable Energy Conversion | 6 | A1X | 4 | E |
| TMMV07 | Computational Fluid Dynamics, advanced course | 6 | A1X | 4 | E |

Specialisation: Technology for Sustainable Development

Semester 9 (Autumn 2018)



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|--|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TEAE08 | Cost-benefit Analysis | 6 | G2X | 3 | E |
| TEIE72 | Corporate Strategies | 6 | A1X | 4 | E |
| TETS23 | Purchasing | 6 | A1X | 2 | E |
| TKMJ31 | Biofuels for Transportation | 6 | A1N | 1 | E |
| TKMJ48 | Sustainable City Development | 6* | A1F | 1 | E |
| TKMJ49 | Environmentally Driven Business Development | 6* | A1N | 3 | E |
| TMES32 | Energy Policy Instruments | 6 | A1X | 3 | E |
| TMKT73 | CAD, second course | 6* | G2X | 1 | E |
| TMMV01 | Aerodynamics | 6 | A1X | 2 | E |
| TMMV12 | Gas Turbine Engines | 6 | A1X | 4 | E |
| Period 2 | | | | | |
| TETS31 | Logistics Strategies | 6 | A1X | 4 | E |
| TFKE30 | Analytical Chemistry | 6 | G1X | 4 | E |
| TKMJ48 | Sustainable City Development | 6* | A1F | 3 | E |
| TKMJ49 | Environmentally Driven Business Development | 6* | A1N | 3 | E |
| TMES51 | International Energy Markets | 6 | A1X | 1 | E |
| TMKT73 | CAD, second course | 6* | G2X | 1 | E |
| TMQU12 | Lean Production | 6 | A1X | 2 | E |
| TSRT06 | Automatic Control, Advanced Course | 6 | A1X | 2 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TEIE72 | Corporate Strategies | 6 | A1X | 4 | С |
| TMPI04 | Project Course Advanced - Sustainable Business Development | 12* | A1X | 3 | С |
| TKMJ31 | Biofuels for Transportation | 6 | A1N | 1 | E |
| TMES27 | Modelling of Energy Systems | 6 | A1X | 3 | E |
| Period 2 | | | | | |
| TMPI04 | Project Course Advanced - Sustainable Business Development | 12* | A1X | 1 | С |
| TMQU12 | Lean Production | 6 | A1X | 2 | E |

Specialisation: Sustainable Business Development

Specialisation: System Tools for Sustainable Development

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TKMJ48 | Sustainable City Development | 6* | A1F | 1 | С |
| TMPE07 | Project Course Advanced - System Tools for Sustainable Development | 12* | A1X | 2 | С |
| TMES32 | Energy Policy Instruments | 6 | A1X | 3 | E |
| Period 2 | | | | | |
| TKMJ48 | Sustainable City Development | 6* | A1F | 3 | С |
| TMPE07 | Project Course Advanced - System Tools for Sustainable Development | 12* | A1X | 2 | С |
| TMES51 | International Energy Markets | 6 | A1X | 1 | E |



| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|---|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TMMV12 | Gas Turbine Engines | 6 | A1X | 4 | С |
| TMPE06 | Project Course Advanced - Technology for Sustainable Development | 12* | A1X | 3 | С |
| TKMJ31 | Biofuels for Transportation | 6 | A1N | 1 | Е |
| TMKT73 | CAD, second course | 6* | G2X | 1 | E |
| TMMV01 | Aerodynamics | 6 | A1X | 2 | E |
| Period 2 | | | | | |
| TMPE06 | Project Course Advanced - Technology for Sustainable Development | 12* | A1X | 3 | С |
| TMKT73 | CAD, second course | 6* | G2X | 1 | E |
| TSRT06 | Automatic Control, Advanced Course | 6 | A1X | 2 | E |

Specialisation: Technology for Sustainable Development

Semester 10 (Spring 2019)

| Course code | Course name | Credits | Level | Timetable module | ECV |
|----------------|----------------------------------|---------|-------|---------------------|-----|
| Period 1 | | | | | |
| TQXX33 | Degree project - Master's Thesis | 30* | A1X | - | С |
| Period 2 | | | | | |
| TQXX33 | Degree project - Master's Thesis | 30* | A1X | - | С |

ECV = Elective / Compulsory /Voluntary *The course is divided into several semesters and/or periods

