



COURSE SYLLABUS

Final Project Work in Industrial Engineering and Management, 15 credits

Examensarbete i Industriell organisation och ekonomi, 15 högskolepoäng

Course Code:	TEIP16	Education Cycle:	First-cycle level
Confirmed by:	Dean Nov 19, 2014	Disciplinary domain:	Technology (95%) and social sciences (5%)
Valid From:	Jan 1, 2015	Subject group:	IE1
Version:	1	Specialised in:	G2E
Reg number:	JTH 2014/4256-122	Main field of study:	Industrial Engineering and Management

Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- Demonstrate an understanding in their main field of study, including knowledge of the scientific basis and proven experience of the field, knowledge of applicable methods in the field, specialization in some area within the field, as well as awareness of current research and development issues.
- Demonstrate relevant knowledge in mathematics and science in the certain selected task.

Skills and abilities

- Demonstrate the ability to search, collect, evaluate and critically interpret relevant information for the project problem formulation, and to critically discuss the phenomena, issues and situations.
- Demonstrate the ability to independently identify, formulate and handle problems, and to analyze and evaluate different technical solutions.
- Demonstrate the ability to independently identify, formulate and solve problems and to use appropriate methods to plan, implement and evaluate data within given frameworks.
- Demonstrate the ability to orally and in writing present and discuss information, problems and solutions in dialogue with different groups.
- Demonstrate the ability to critically and systematically use knowledge to model, simulate, predict and evaluate developments based on relevant information.
- Demonstrate the ability to design and manage products, processes or systems with regard to human or organizational needs and for the relevant objectives of economically, socially and ecologically sustainable development.

Judgement and approach

- Demonstrate the ability in the main field of study to make assessments with regard to the work on relevant scientific, social and ethical aspects.
- Demonstrate the ability to identify one's need for further knowledge and to continuously develop one's skills.

- Demonstrate an understanding of the opportunities and constraints of technology and knowledge, their role in society and people's responsibility for their use, including for the work relevant social and economic aspects as well as environmental and safety aspects.

Contents

The course provides basic knowledge and skills to independently carry out a larger work that shows the student's ability to apply, critically use and further develop education, the acquired skills, preferably in close cooperation with companies, organizations or authorities.

The course includes the following elements:

- Problem formulating
- Project planning
- Collecting, processing, and analyzing data
- Project implementation
- Report writing
- Oral presentation and opposition

Type of instruction

The student conducts, alone or in groups, a thesis project in the field of Industrial Engineering and Management.

The teaching is normally conducted in Swedish, but can occasionally be in English.

Prerequisites

General entry requirements and completed courses of at least 120 credits in the program, including at least 60 credits within the major subject Industrial Engineering and Management as well as 15 credits in Mathematics (or equivalent).

In the requirement of the completed courses (120 credits) the courses Natural Science 1-3, Basic Mathematics and Chemistry and Basic Physics 1-2 (or equivalent) are not included (or the equivalent).

Examination and grades

The course is graded 5,4,3 or Fail.

The course is examined through a written report, oral presentation of the report, opposition on another group's thesis, tutoring, as well as attending the mandatory sessions. The grade is set according to a special assessment template.

Registration of examination:

Name of the Test	Value	Grading
Examination	15 credits	5/4/3/U

Other information

The course responsible can grant an exemption from the study requirements in admission requirements. A supervisor and an examiner are appointed for each thesis. Implementation should follow the instructions laid down at JTH. The work may start after the examiner's approval.

Course literature

Relevant literature is chosen based on the thesis topics in consultation with the supervisor. The student has the main responsibility in this process.