

## **Quality and environmental management, 5 HE credits**

*Kvalitets- och miljöledning, 5 hp*

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Established: 2022-06-09

Established by: Department of Engineering Science

Applies from: H22

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### **Learning outcomes**

#### **Knowledge and understanding**

After completing the course, the student should be able to show knowledge of:

- principles and concepts of quality.
- quality tools.
- standards for quality management systems, such as ISO 9000.
- principles and concepts of sustainability.
- environmental requirements for the manufacturing industry.
- standards for environmental management systems, such as ISO 14000.

#### **Competence and skills**

After completing the course, the student should be able to:

- select and apply appropriate quality tools and methods to handle a given scenario.

### **Entry requirements**

General entry requirements

**You also need:** Physics 2, Chemistry 1, Mathematics 3c or Mathematics D

### **The forms of assessment of student performance**

Individual written exam. Group task with oral presentation.

### **Course contents**

The focus of the course is concepts of quality and environmental management and related methods and tools to control, improve and ensure the quality of products.

Special emphasis is placed on production for quality including statistical process control, seven improvement tools, control charts, etc. Basic knowledge and concept of each topic will be explained and elaborated on in the course. Quality management systems, i.e. ISO 9000 series and some similar standards (e.g. QS-9000, etc.) will be introduced to students.

The course also deals with sustainability in industrial manufacturing and relevant ISO standards, e.g. ISO 14000.

### **Other regulations**

Course grading: U/3/4/5

Course language: The teaching is conducted in English.

General rules pertaining to examination at University West are available at [www.hv.se](http://www.hv.se).

If the student has a decision/recommendation on special support due to disability, the examiner has the right to examine the student in a customized examination form.

### **Course Overlap**

Read about course overlap in the Swedish version of this course syllabus.

### **Cycle**

First cycle

### **Progressive specialization**

G1N - first cycle, has only upper-secondary level entry requirements

### **Main field of study**

Mechanical Engineering