



## COURSE SYLLABUS

# Operations and Quality Management, 9 credits

*Verksamhets- och Kvalitetsstyrning, 9 högskolepoäng*

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<b>Course Code:</b>	TOQK17	<b>Education Cycle:</b>	First-cycle level
<b>Confirmed by:</b>	Dean Mar 1, 2016	<b>Disciplinary domain:</b>	Technology (95%) and social sciences (5%)
<b>Valid From:</b>	Jan 1, 2017	<b>Subject group:</b>	IE1
<b>Version:</b>	1	<b>Specialised in:</b>	G1F
<b>Reg number:</b>	JTH 2016/2674-313	<b>Main field of study:</b>	Industrial Engineering and Management

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- show familiarity with fundamental principles, methodologies and techniques for operations and quality management
- display knowledge of how to manage and improve operations using methodologies and techniques for operations and quality management
- demonstrate comprehension of how to develop policies, goals, structure and procedures for an integrated management system including quality, environmental, safety and corporate social responsibility management systems.

Skills and abilities

- demonstrating skills of planning and conducting improvement projects using process mapping, quality improvement tools, statistical process control, design of experiments and customer-focused product development
- demonstrating the ability to collect, assess and analyze process information in order to systematically identify and solve quality related problems within industry and service

Judgement and approach

- demonstrating the ability to critically assess and discuss how quality and operations management can contribute to industrial development through improvement of products and processes
- demonstrating the ability to critically assess and discuss the importance of operations and quality management in order to create a sustainable society

### Contents

The course Operations and Quality Management provides a knowledge on how to acquire business excellence through sound and practical operations and Total Quality Management Implementation.

The course includes the following elements:

- Strategies within TQM
- Quality Excellence Models
- Process management
- Integrated Management Systems with focus on quality, environmental, safety and corporate social responsibility management systems
- Customer focused planning
- 7 improvement and 7 management tools
- Design of experiments
- Statistical process control

### **Type of instruction**

In order to encourage active learning with our students, the course is organised around a number of project assignments connected to an industrial example. The teaching consists of lectures, where theoretical perspectives are presented; seminars for discussion of cases; tutorials where the students have the opportunity to apply central methods; and regular supervision to support the projects.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and completed course Leading Sustainable Organizations, 9 credits (or the equivalent).

### **Examination and grades**

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

The course is examined through the case assignments, individual assignment and written examination. In order to pass the course the student needs to be approved on all three parts: group assignments, an individual assignment and a written exam. The results from the examination are weighed together to form the final grade.

Registration of examination:

Name of the Test	Value	Grading
Written examination	3 credits	5/4/3/U
Assignments	6 credits	5/4/3/U

### **Course literature**

The literature list for the course will be provided one month before the course starts.

Title: Quality From Customer Needs to Customer Satisfaction

Author: Bo Bergman and Bengt Klefsjö

Publisher: Studentlitteratur, 2010