



Faculty of Health, Science and Technology  
Mechanical Engineering

## Syllabus

### Program introduction to Innovation and Design Engineering

<b>Course Code:</b>	MSGA20
<b>Course Title:</b>	Program introduction to Innovation and Design Engineering <i>Programintroduktion innovationsteknik och design</i>
<b>Credits:</b>	1.5
<b>Degree Level:</b>	Undergraduate level
<b>Progressive Specialisation:</b>	First cycle, has only upper-secondary level entry requirements (G1N)

**Major Field of Study:**  
MTA (Mechanical Engineering)

#### Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2019-03-13, and is valid from the Autumn semester 2019 at Karlstad University.

#### Prerequisites

General admission requirements plus Mathematics D, Physics B, and Chemistry A (standard eligibility E.3) or Mathematics 3c, Physics 2, and Chemistry 1 (field-specific eligibility A8), or equivalent

#### Learning Outcomes

Upon completion of the course, students should be able to:

- describe the role of innovation and design engineers, including their code of honour, on the basis of lectures, projects, and literature,
- describe the processes of product development and design in general terms, and
- write simple reflective reports using correct structure and language.

#### Content

The course covers the following:

- lectures on the role of engineers and the processes of product development and design
- a limited product development project
- literature study
- an introduction to study techniques and the writing process

### **Reading List**

See separate document.

### **Examination**

Assessment is based on an individual written hand-in assignment and an oral presentation.

### **Grades**

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

### **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

### **Course Certificate**

A course certificate will be provided upon request.

### **Additional information**

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.