



## Textile design and product development Textil konstruktion och produktutveckling

7.5 credits

7.5 högskolepoäng

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**Ladok Code:** 52KP01

**Version:** 5.0

**Established by:** The Teaching Committee 2011-10-21

**Valid from:** Autumn 2011

**Education Cycle:** Second cycle

**Main Field of Study (Progressive Specialisation):** Textile Engineering (A1F), Mechanical Engineering (A1F)

**Disciplinary Domain:** Technology

**Prerequisites:** These prerequisites do not apply to students within the programme Science without Borders

Bachelor degree of textile engineering. Also required prior knowledge in English (equivalent to Swedish Level B).

**Subject Area:** Textile Technology

**Grading Scale:** ECTS-credits

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### Content

- Product Development Process steps
- Project Work
- Patents and intellectual property rights
- Methodological Overview
- Methods for selection
- Creative methods
- Textile acoustic applications and tools
- Textile interactive design and introduction to technical and smart textiles applications

### Learning Outcomes

After passing the course the student should be able to:

- describe the product development process stages
- apply the product development methodology in a product development project
- apply textile technology in product development and design of fiber-based products.
- select different types of fibers, yarns and fabrics suitable for making functional and sophisticated fabrics.
- be aware of the established product development methods, patent and intellectual property
- describe how the textile materials may be combined with a physical function tailored to the user's requirements
- propose new textile applications, material or concepts in e.g. transport, agriculture, automotive, construction, medical technology, etc.
- problematize implications and consequences in product development processes for sustainable development
- Have knowledge of textile materials acoustic properties, applications and textile interaction design.
- Have knowledge about textile interaction design

### Forms of Teaching

Teaching consists of lectures, tutorials, exercises and project work.

The course is taught in English.

The language of instruction is English.

## **Forms of Examination**

Course is examined through the following forms of examination with respect to specified learning outcomes:

Assignment-1, 7.5 credits

**Rating scale:** ECTS, the course will be graded A, B, C, D, E, F or Fx (ECTS grading scale). The final grade is based on the weighted average of grades from the various parts of the course.

Each exam will be offered at five occasions, including at least three within one year. With the offer of an examination session it is meant scheduled exam or re-examination or the final date for written or oral presentations.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

## **Literature and Other Teaching Materials**

- Product Design and Development(4:de), Ulrich, T & Eppinger, S(2007), McGraw-Hill Higher Education
- Cradle to Cradle, McDonough, W & Braungart, M(2003), North Point Press

## **Student Influence and Evaluation**

## **Miscellaneous**

The course is primarily a program course for the Masters programme in textile engineering and Masters degree in textile technology.