UNIVERSITY OF BORÅS

Textile Product Development
Textil produktutveckling
7.5 credits

Ladok Code: AT2TP2
Version: 1.0
Established by: Committee for Education in Technology 2018-12-14
Valid from: Spring 2019

Education Cycle: Second cycle
Main Field of Study (Progressive Specialisation): Textile Engineering (A1N)
Disciplinary Domain: Technology 70%, Design 30%
Prerequisites: Admitted to the Master Programme in Textile Engineering.
Subject Area: Textile Technology
Grading Scale: Seven-degree grading scale (A-F)

Content

By this course, the students are trained in the product development process. They acquire skills to manage generic product development methods from a clear user perspective. The applications in this project oriented course can vary a lot but the solutions should be textile based with room for creativity. Companies or other external stake holder are enrolled to define the application contexts and as receiver of the individual concept development outcomes.
During the course the students will be trained to explore the conditions of the applications including competition, reimburcements, immatieral rights, to define user needs, how they are transferred to functional requirements, concept development, concept selection, prototype generation and requirement specification verification, all under sustainable development consideration.

Learning Outcomes

Upon completion of the course, the student should be able to, with regard to,

Knowledge and understanding
1.1 account for the various stages of the product development process,
1.2 describe the interrelationship of user needs and product requirements, and
1.3 account briefly for conditions to get a patent clearance,

Skills and Abilities
2.1 conduct prestudies for certain given groups of products,
2.2 investigate immaterial right limitations for new textile products,
2.3 transform user needs to requirement specifications and choose appropriate means for verification,
2.4 creatively employ acquired textile technological knowledge and abilities to create product concepts and demonstrators that illustrates intended functions,
2.5 consider aspects of sustainable development in the product development process, and
2.6 communicate product development output both in writing and orally to peers and external task holder,

Judgement and Approach
3.1 assess opportunities and threats to society of different product concepts.

Forms of Teaching

Lectures, seminars, assignments with supervision and laboratory work.

The language of instruction is English.

Forms of Examination

The course is examined through the following examination steps:

Submission 1: Essay
Learning Objectives: 1.1-1.3, 2.6
Credits: 1.0
Grading scale: Pass/Fail

Submission 2: Project report
Learning outcomes: 2.1-3.1
Credits: 6.0
Grading scale: A-F

Oral and visual project presentation
Learning outcomes: 2.1-3.1
Credits: 0.5
Grading scale: Pass/Fail

The project work determines the final grade of the course, which is granted once every examination step has passed.

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

Literature and Other Teaching Materials

Ulrich K.T. and Eppinger S.D. (2012) *Product Design and Development,* 5:th Ed, McGraw-Hill, Boston, Mass, USA

Additional educational material is provided on HB's learning platform.

Student Influence and Evaluation

Students' opinions are collected systematically and regularly through written evaluation after completing the course. Once per semester, student representatives evaluate courses completed with the director of studies and the course leader. Otherwise, refer to the university's policy for course evaluations and documents issued by the board of directors, the director of studies and the course coordinator.

Miscellaneous

The course is primarily a program course for Master's Program in Textile Technology.

This syllabus is a translation from the Swedish original.