UNIVERSITY OF BORÅS

Textile Product Development
Textil produktutveckling
6 credits
6 högskolepoäng

Ladok Code: AT2TU2
Version: 3.0
Established by: Committee for Education in Technology 2022-04-08
Valid from: Autumn 2022

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

Content

By this course the students are offered opportunities to excersise their product development process skills. They acquire ability to handle generic product development methods with a stressed user perspective. The applications of this project oriented course varies whereas the textile based solutions gives room for creativity. A company or other external part is enrolled to define the application areas and as receiver of the individual concept projects.

During the course the students are trained to explore the conditions of applications including competition, reimburcements, immaterial rights, to define users and their needs, how these user needs are converted into functional requirements, concept development, concept selection, prototype generation and requirement specification verification, all in the light of sustainable development.

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 collect, compile and convert user needs to product 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, staff and external task holder.

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

Forms of Teaching

Lectures, seminars, project assignments with 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: 0.5
  Grading scale: Pass/Fail
- Submission 2: Project report
  Learning outcomes: 2.1-3.1, Credits: 5.0
  Grading scale: A-F
- Oral and visual project presentation
  Learning outcomes: 2.1-3.1, Credits: 0.5
  Grading scale: Pass/Fail
  The project report determines the final grade of the course, which is granted once every examination step has passed.

  If the student has received a decision/recommendation regarding special pedagogical support from the University of Borås due to disability or special needs, the examiner has the right to make accommodations when it comes to examination. The examiner must, based on the objectives of the course syllabus, determine whether the examination can be adapted in accordance with the decision/recommendation.

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

The course is evaluated in accordance with current guidelines for course evaluations at the University of Borås in which students' views are to be gathered. The course evaluation report is published and returned to participating and prospective students in accordance with the above-mentioned guidelines, and will be taken into consideration in the future development of courses and education programmes. Course coordinators are responsible for ensuring that the evaluations are conducted as described above.

Miscellaneous

The course is primarily intended for the master programmes in textile technology.

This syllabus is a translation from the Swedish original.