UNIVERSITY OF BORÅS

Textile technology
Textilteknologi
7.5 credits

Ladok Code: 52TK01
Version: 4.0
Established by: The Teaching Committee 2011-10-21
Valid from: Autumn 2011

Education Cycle: Second cycle
Main Field of Study (Progressive Specialisation): Textile Engineering (A1N)
Disciplinary Domain: Technology
Prerequisites: These prerequisites do not apply to students within the programme Science without Borders
Bachelor's Degree in Textile Technology (or equivalent). The applicant shall also have documented English skills at B level.
Subject Area: Textile Technology
Grading Scale: ECTS-credits

Content
The course provides the students an opportunity to broaden their understanding of a highly specialized field that requires application of practical ingenuity to solve a variety of technical problems. This course introduces:

- Textiles for composite materials application. apply
- Fibres used and their peculiar processing behavior.
- Technical requirements for producing textile structures suited for composite materials' application.
- Techniques for exploiting conventional flat weaving process to produce different textile products.
- Latest 2D and 3D process developments for engineering textile reinforcements.
- Practical opportunity to produce a 3D fabric

Learning Outcomes
Upon completion of this course the student would have acquired knowledge about:

- Application of textiles for high-performance composite materials.
- Different advanced 2D and 3D processes available for manufacturing textile reinforcements.
- Engineering fabric structures for creating required fabric properties for composite material application, and
- 2Practical aspects of 3D fabric manufacture.

Forms of Teaching
The course consists of lectures and laboratory work.
The course is given in English.

Forms of Examination
The course is examined through:
Written exam, 6.0 p Betygskala: EC
Laboratory work, 1.5 p Betygskala: EC

To receive the grade the student must pass both practical and the written examinations. The grade is determined by both the written examination and practical work.

Each exam will be offered at five occasions, including at least three during one year. An offered examination is equal to a scheduled exam, re-examination or the final date for written or oral
presentation.

Student rights and obligations at examination are in accordance with guidelines and rules for

the University of Borås.

Literature and Other Teaching Materials

Course literature

Tsu-Wei Chou and Ko, Frank, Composite Materials, ‘Textile Structural Composites’, Elsevier Science Publishing

Miravete, A., Three Dimensional Textile Reinforcements for Composite Materials, Woodhead Publishing

Adanur, S., Wellington Sears Handbook of Industrial Textiles, Technomic Publishing

Adanur, S., Handbook of Weaving, Technomic Publishing

Student Influence and Evaluation

The students' opinions are collected systematically and regularly through written course evaluations once the course is completed. One time per semester, student representatives, together with the Director of studies and Programme Directors, evaluate completed courses.
For addition materials, please refer to the University's policy on course evaluation and documents established by the Department board, the Director of studies and the Course director.

Miscellaneous

This course is primarily a programme course in the Master programme in textile engineering