



Textile Chemistry with Enviromental Chemistry

Textilkemi med miljökemi

7.5 credits

Ladok Code: TTM011

Version: 3.0

Established by: Research Board 2008-12-17

Valid from: Spring 2009

Education Cycle: First cycle

Main Field of Study (Progressive Specialisation):

Disciplinary Domain: Technology

Prerequisites: Completed the courses Textile materials with textile testing 7,5 credits and Mechanics and Tensile Properties of Textile Fibres 7,5 credits or equivalent knowledge.

Subject Area: Textile Technology

Grading Scale: Fail (U), Pass (G) or Pass with Distinction (VG)

Content

Module 1: Basic organic chemistry

General information on the periodic table of elements, chemical bonding, nomenclature, hydrocarbons, alcohols, phenols, ethers, carbonyl compounds, amines, carboxylic acids, esters, amides, halogen compounds, optical isomerism, hydroxy acids, carbohydrates.

Module 2: Textile chemistry with environmental chemistry

Fibre chemistry - all about the chemical structure and properties of natural and manmade fibres, textile excipient chemistry, dye chemistry, textile process chemistry. General information on global environmental problems, environmental legislation, Swedish environmental protection work, environmental impact of fibre production, environmental impact of textile and washing processes.

Learning Outcomes

After completing this course, students must have a basic knowledge of organic chemistry to provide an understanding of textile chemistry links, a basic knowledge of textile chemistry for an understanding of the chemical structure and properties of textile fibres, the chemical structure and properties of textile excipients and dyes, and textile process chemistry. Students must also have a basic knowledge of the environment, focusing in particular on textile processes/products.

Forms of Teaching

Lectures

The language of instruction is Swedish. However, instruction in English may occur.

Forms of Examination

The course will be examined through the following examination elements:

Written exam in basic organic chemistry

Learning outcomes:

Credits: 1.5

Gradingscale: Fail (U) or Pass (G)

Written exam in textile chem. w environ, chem.

Learning outcomes:

Credits: 6

Grading scale: Fail (U), Pass (G) or Pass with Distinction (VG)

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

- Kompendium i organisk kemi för textilingenjörsprogrammet, Tingsvik, K.(2009), Textilhögskolan, Högskolan i Borås.
- Kompendium i textilkemi för textilingenjörsprogrammet., Tingsvik, K.(2009), Textilhögskolan, Högskolan i Borås

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 additional 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 Textile Technology Programme.