COURSE DESCRIPTION
SMART TEXTILES

Course title Smart Textiles	**Kursustitel** Smart Textiles
Course number BT2ST--KMU	**Approved** 02.05.23
Level and semester BA, 4th semester	**Field of study** Textile Design
ECTS 5	**Responsible** Helle Graabæk
Exam form Semester exam (see Studieplan/Study Plan on Itslearning) Combination test: Oral defence and design product	**Assessment** 7-point grading scale The exam will be an overall evaluation of the presented design product and the oral defence.
Censor External	**Extent/duration of exam** The duration of the total semester exam is 60 minutes, of which: 20 minutes are for the student's presentation 20 minutes are for discussion 20 minutes are for voting and assessment
Group work see Studieplan/Study Plan on Itslearning	**Prerequisite** As a mandatory prerequisite for participation in the exam, the student must deliver a learning portfolio before a deadline set by the study administration. Exchange students are exempt, and do not need to hand in a learning portfolio to participate in the exam.

**Danish University
of Design**

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Course objective

Smart textiles are in rapid technological development, and this course will give the students a basic understanding of the field. The course will introduce the students to various areas where intelligent materials and smart textiles are developed and worked with. The students will be introduced to various materials and technologies, including sensors, actuators, embedded electronics and intelligent fibres. In addition, the students will in the course have to experiment with physical / digital prototyping, for example through 3D printing and artificial intelligence.

The course will introduce the students to textiles from a future-oriented perspective and they will also learn how designers create visionary concepts and scenarios through speculative design. The course will give the students the opportunity to investigate and experiment with how the smart textiles and materials can improve people's quality of life, safety and well-being. We will discuss how, as a textile designer, you have opportunities to influence the field in both an aesthetic and humane direction.

Learning outcome

At the examination, the student is expected to:

Knowledge:
* *have a basic understanding of what smart textiles are*
* *have an understanding of different application areas for smart textiles/materials*
* *have a basic understanding of future-oriented scenario thinking*

Skills:
* *be able to develop functioning prototypes for one or more types of smart textiles*
* *be able to develop conceptual prototypes that explore future potentials for smart textiles*
* *be able to develop and frame a future-oriented design concept*

Competences:
* *be able to argue for and visually/verbally convey a future-oriented scenario*
* *be able to argue for and visually/verbally communicate design experiments*
* *be able to reflect on and discuss limitations/potentials for the designer within smart textiles*

Generic learning outcome

In addition to the above-mentioned course-specific learning outcomes, the student is also expected to:

* *be able to present own research and project through an oral and visual presentation, that both explains what, why and how, and contains a reflection on the process and the concrete learning along the way*
* *be able to translate design experiments – regardless of the outcome – into learning and development of their own design practice*