Course Specifications
Valid as from the academic year 2019-2020

Advanced Fibre Technology (E064821)

Course size (nominal values; actual values may depend on programme)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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<tbody>
<tr>
<td>3.0</td>
<td>90 h</td>
<td>20.0 h</td>
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</tbody>
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Course offerings and teaching methods in academic year 2019-2020

A (semester 1)  English  seminar: coached exercises 10.0 h  lecture 10.0 h

Lecturers in academic year 2019-2020

Van Langenhove, Lieva  TW11  lecturer-in-charge

Offered in the following programmes in 2019-2020

Master of Science in Textile Engineering  crdts  offering
3  A

Teaching languages

English

Keywords

Fibre classification, fibre properties, advanced fibres, technical applications

Position of the course

The production of fibers and polymers requires dedicated processing techniques. This course addresses the textile fibres.

Contents

- Types and general properties of fibres
  - Natural fibres: cotton, wool, linen, hemp
  - Synthetic fibres: viscose, polyamide, PVC, polyester
  - High tech fibres:
    - High-performance Polyethylene Fibres
    - Polyketone Fibres
    - Polyphenylene Sulfide Fibres
    - Aromatic Polyester Fibres
    - Carbon Fibres
    - Aramid Fibres
    - Polyimide Fibres
    - Fibres from Aromatic Heterocyclic Polymers
    - Glass Fibres
    - Basalt Fibres
    - Ceramic Fibres

Initial competences

Basic knowledge of polymers and mechanics of materials

Final competences

1. Describe and explain main properties of textile fibres
2. Knowledge on properties and use of textile fibres.
3. Select the proper fibres for a specific use.

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

(Approved)
Lecture, seminar: coached exercises

Learning materials and price
   Course notes and slides are made available

References

Course content-related study coaching

Evaluation methods
   end-of-term evaluation

Examination methods in case of periodic evaluation during the first examination period
   Written examination

Examination methods in case of periodic evaluation during the second examination period
   Written examination

Examination methods in case of permanent evaluation

Possibilities of retake in case of permanent evaluation
   not applicable

Calculation of the examination mark
   Theory: 16 out of 20 marks; exercise: 4 out of 20 marks.