# 205402 - Functional Innovations in Textile Finishes

**Coordinating unit:** 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
**Teaching unit:** 702 - CMEM - Department of Materials Science and Metallurgy  
**Academic year:** 2018  
**Degree:** MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Teaching unit Optional)  
**ECTS credits:** 5  
**Teaching languages:** Catalan, Spanish

## Teaching staff

Coordinator: Cristina Rodríguez Sorigué

## Prior skills

The usual ones in the graduates in engineering

## Teaching methodology

- The exhibition combines theoretical aspects of the teacher and discussion of case application, the individual and collective by the student:  
  - Sessions exhibition content (theory)  
  - Discussion sessions supervised practical work of individual and collective  
  - Individual (oral presentation of technical report)  
  - Work groups (with public exposure)

## Learning objectives of the subject

## Study load

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group:</th>
<th>30h</th>
<th>24.00%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Hours small group:</td>
<td>15h</td>
<td>12.00%</td>
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<td></td>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Self study:</td>
<td>80h</td>
<td>64.00%</td>
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Content

**Unit 1: Case Studies From the objectives of the technical specifications of engineering know-how of production**

- 1.1 Case 1: Innovation and crosslinkers based on sizing antibrutícia in PRENDAS clothing
- 1.2 Case 2: Innovation in flame retardant finishing
- 1.3 Case 3: Innovation in technical textiles for finishing

**Description:**

- On the work done with the teacher, students will create their own presentations for public defense projects
- Drafting of reports on state of the art

**Learning time:** 36h
- Theory classes: 36h

**Unit 2: Application of biotechnology in the process of finishing**

- 2.1. Enzyme systems
- 2.2. Innovation in biodegradable products

**Description:**

- On the work done with the teacher, students will create their own presentations for public defense projects developed from the study of the best applications of biotechnology in the textile industry.

**Learning time:** 12h
- Theory classes: 12h

Qualification system

Oral presentation of case studies: 20%
Assessment of written reports presented: 50%
Evaluation of activities: 30%
Deliverables cases on process innovation and / or textiles: 70%
- Reports works and laboratory studies: 30%

The unsatisfactory results of case studies and written reports will be recovered during the year according to the professor. For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

Regulations for carrying out activities

Will promote teamwork and individual tutorials to achieve the objectives
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Bibliography

Basic:


Complementary:


Others resources:

Audiovisual material

Nom recurs

Resource