320083 - CET - Clothesmaking with Textile Structures

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 702 - CMEM - Department of Materials Science and Metallurgy
Academic year: 2019
Degree: BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009).
(Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: Xavier Capdevila Juan

Opening hours
Timetable: in the morning, to be agreed with the student

Prior skills
An adequate knowledge of materials, yarns, fabrics, textile processes and production organization is desirable.

Requirements
have approved the subjects of textile materials and textile design structures

Degree competences to which the subject contributes
Specific:
1. TEX: Ability to develop textile products and industrial manufacturing.

Transversal:
2. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
3. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

Teaching methodology
In the theoretical classes, the professor introduces the basics of docent materials from examples to facilitate the understanding and everything related to industrial practice.
In the practical sessions, student apply the material presented.
Students will have to work and study individually and autonomously to solve exercises i assimilate thers collateral materials

Learning objectives of the subject
The subject class is structured in two parts: the first refers to the patterns cutting and materials utilisation and second referred to the technological analysis of operation for making garments
### Total Learning Time

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total learning time</td>
<td>150h</td>
<td>100.00%</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30h</td>
<td>20.00%</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30h</td>
<td>20.00%</td>
</tr>
<tr>
<td>Guided activities</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td>Self study</td>
<td>90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
### Content

#### PATTERN CONSTRUCTION

**Learning time:** 25h  
- Theory classes: 5h  
- Laboratory classes: 5h  
- Self study: 15h

**Description:**  
- Clothing sizes.  
- Methodology based designs of patterns.  
- Grading increments.

**Related activities:**  
RA2

**Specific objectives:**  
Appreciate the natural proportions to the representation of human figure and therefore to clothing manufacture.  
Designing forms from the size.

#### CUT PLANNING

**Learning time:** 25h  
- Theory classes: 5h  
- Laboratory classes: 5h  
- Self study: 15h

**Description:**  
- Making a lay plan  
- Cut order planning  
- Management of fabric faults

**Specific objectives:**  
Improved use of fabric consumption.  
Optimize marker planning and cut orders in production.
<table>
<thead>
<tr>
<th>MANAGEMENT PURCHASING</th>
<th>Learning time: 25h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 5h</td>
</tr>
<tr>
<td>- Purchases and supply.</td>
<td>Laboratory classes: 5h</td>
</tr>
<tr>
<td>- Reception control clothing.</td>
<td>Self study : 15h</td>
</tr>
<tr>
<td>- Purchase lot size.</td>
<td></td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td></td>
</tr>
<tr>
<td>RA3 and RA4</td>
<td></td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td></td>
</tr>
<tr>
<td>Relate the purchasing and supply functions with others business functions.</td>
<td></td>
</tr>
<tr>
<td>Determine purchase lot size</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SEWING TECHNOLOGY</th>
<th>Learning time: 25h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 5h</td>
</tr>
<tr>
<td>- Types of stitches and seams.</td>
<td>Laboratory classes: 5h</td>
</tr>
<tr>
<td>- Sewing machine needles and threads.</td>
<td>Self study : 15h</td>
</tr>
<tr>
<td>-Feeding systems</td>
<td></td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td></td>
</tr>
<tr>
<td>RA5</td>
<td></td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td></td>
</tr>
<tr>
<td>Specify sewing elements.</td>
<td></td>
</tr>
<tr>
<td>Design of seams</td>
<td></td>
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</table>
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<table>
<thead>
<tr>
<th>SEWABILITY</th>
<th>Learning time: 25h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 5h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 5h</td>
</tr>
<tr>
<td></td>
<td>Self study: 15h</td>
</tr>
</tbody>
</table>

**Description:**
- Relationship needle-thread-fabric.
- Seam resistance.
- Needle penetration force.
- Seam puckering.

**Specific objectives:**
Find the best relationship needle-thread-fabric.
Solve fabric damage, sewing faults.

<table>
<thead>
<tr>
<th>ANALYSIS OF SEWING OPERATIONS</th>
<th>Learning time: 25h</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Theory classes: 5h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 5h</td>
</tr>
<tr>
<td></td>
<td>Self study: 15h</td>
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</tbody>
</table>

**Description:**
- Operations plan.
- Analysis of sewing operations.
- Work study.
- Work measurement.

**Related activities:**
RA7 and RA8

**Specific objectives:**
Rationalization of work
Determining production time

**Qualification system**
- First examination: 40%
- Second examination: 40%
- Related activities: 20%

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.
The renewal of the first test for suspensions by means of a test added on the final exam: maximum possible markable score 7. The resulting qualification will not be less than obtained by maintaining the original qualification of the first evaluation.
Regulations for carrying out activities

The class activities are reports on subjects not exposed in class and related work in class will give explanations on certain dates.

Bibliography

Basic:


Complementary:


Others resources:

- Computer material
  - INVESMARK
  - CAD PATTERN