Degree competences to which the subject contributes

Specific:
CEMT-20. Knowledge of the mechanical, electronic, chemical and biological behaviour of materials, and the ability to apply it in designing, calculating and modelling aspects of elements, components and equipment.

Transversal:
07 AAT N3. 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.
04 COE N2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.

Teaching methodology

Lectures, demonstrations in class, problems and lab

Learning objectives of the subject

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 45h</th>
<th>30.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours small group: 15h</td>
<td>10.00%</td>
</tr>
<tr>
<td></td>
<td>Self study: 90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
### Content

**UNIT I: Physics of light**

**Learning time:** 50h  
Theory classes: 12h  
Practical classes: 8h  
Self study: 30h

**Description:**  

**UNIT II: Color in Materials**

**Learning time:** 50h  
Theory classes: 12h  
Practical classes: 8h  
Self study: 30h

**Description:**  

**UNIT IV: Thermal Properties of Materials**

**Learning time:** 25h  
Theory classes: 6h  
Practical classes: 4h  
Self study: 15h

**Description:**  
Qualification system

40% Final Exam + 30% Partial Exam + 10% Presentation + 20% Laboratory

Bibliography

Basic:


