This course is intended to introduce students into the engineering applications from the user point of view and not as an engineer, who does not necessarily have such training. This course will focus on a highly technical and specialized automotive discipline such as motorcycling, in which almost everything is related to engineering. It is proposed to show the importance of proper communication, as well as how technical concepts must be properly summarized, transmitted and documented in accordance with the purpose of the device designed. It is also of vital importance and at the same time is overlooked, the role of engineers have into the specification of user skills or the training they should receive in order to manage properly the designed devices.

The course will pay special attention on all these concepts. It will be organized into theoretical lectures and practical classes.

### Learning objectives of the subject

This course is intended to introduce students into the engineering applications from the user point of view and not as an engineer, who does not necessarily have such training. This course will focus on a highly technical and specialized automotive discipline such as motorcycling, in which almost everything is related to engineering. It is proposed to show the importance of proper communication, as well as how technical concepts must be properly summarized, transmitted and documented in accordance with the purpose of the device designed. It is also of vital importance and at the same time is overlooked, the role of engineers have into the specification of user skills or the training they should receive in order to manage properly the designed devices.

The course will pay special attention on all these concepts. It will be organized into theoretical lectures and practical classes.

### Study load

<table>
<thead>
<tr>
<th>Total learning time: 75h</th>
<th>Hours large group: 30h</th>
<th>40.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study: 45h</td>
<td></td>
<td>60.00%</td>
</tr>
</tbody>
</table>
## Content

### Module 1: Theory

**Learning time:** 45h  
Theory classes: 20h  
Self study: 25h

**Description:**  
1. Introducing Motorcycles  
2. Motorcycle Mechanics  
3. Dynamic Principles  
4. Chassis Design  
5. Alternative and Advanced Designs

**Related activities:**  
Theoretical Sessions  
Activity 1: Assignments

### Module 2: Applied Activities

**Learning time:** 30h  
Theory classes: 10h  
Self study: 20h

**Description:**  
1. Motorcycle Racing Session  
2. Manufacturing Practice

**Related activities:**  
Practical Sessions  
Activity 2: Project Design

## Qualification system

Activity 1: 50%  
Activity 2: 50%
220129 - Motorbikes Design and Secrets

Bibliography

**Basic:**


**Complementary:**
