Course guide

390337 - BIC - Bioinstrumentation and Control

Unit in charge: Barcelona School of Agri-Food and Biosystems Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering.

Degree: BACHELOR’S DEGREE IN BIOSYSTEMS ENGINEERING (Syllabus 2009). (Compulsory subject).

Academic year: 2022       ECTS Credits: 6.0       Languages: Catalan

LECTURER

Coordinating lecturer: MARCOS QUÍLEZ FIGUEROLA
Others: MARCOS QUÍLEZ FIGUEROLA

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours small group</td>
<td>20,0</td>
<td>13.33</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>40,0</td>
<td>26.67</td>
</tr>
</tbody>
</table>

Total learning time: 150 h
CONTENTS

1. INSTRUMENTATION AND MEASUREMENT IN BIOLOGICAL PROCESSES

Description:
1.1 Introduction to measurement systems in biological processes
1.2 Sensors, electrodes and probes
1.3 Data acquisition and transmission in industrial environments

Related activities:
Activity 1: Lectures in the classroom
Activity 2: Individual written exams.
Activity 3: Application sessions (small groups).
Activity 4: Exercises

Full-or-part-time: 78h
Theory classes: 23h
Laboratory classes: 10h
Self study: 45h

2. CONTROL SYSTEMS IN BIOLOGICAL PROCESSES

Description:

Full-or-part-time: 72h
Theory classes: 17h
Laboratory classes: 10h
Self study: 45h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

Complementary: