Course guide
820026 - FIB - Physiology

Unit in charge: Barcelona East School of Engineering
Teaching unit: 745 - DEAB - Department of Agri-Food Engineering and Biotechnology.
702 - CEM - Department of Materials Science and Engineering.

Degree: BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Compulsory subject).

Academic year: 2022  
ECTS Credits: 6.0  
Languages: Catalan, Spanish

LECTURER

Coordinating lecturer: ELISABET ENGEL LOPEZ

Segon quadrimestre:
ELISABET ENGEL LOPEZ - Grup: M31, Grup: M32, Grup: M33, Grup: M34, Grup: M35

Others:  
Segon quadrimestre:
ELISABET ENGEL LOPEZ - Grup: M31, Grup: M32, Grup: M33, Grup: M34, Grup: M35
SOLEDAD GRACIELA PEREZ AMODIO - Grup: M31, Grup: M35
MARCEL SORRIBAS OLIVERA - Grup: M33, Grup: M34

REQUIREMENTS

BIOLOGIA - Prerequisit

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:  
2. Understand physiology and biology. 
CEBIO-210. Identify the physical bases of biological processes.

Transversal:  
1. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.

TEACHING METHODOLOGY

The course uses expository methodology (theory) in 29%, individual or group classroom (lab) in 10%, individual distance in a 47% non-attendance and work in another group 14 %.

LEARNING OBJECTIVES OF THE SUBJECT

That the student is able to integrate the functioning of organs and systems responsible for maintaining homeostatic balance within relatively narrow limits that determine the physical activity
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>45,0</td>
<td>30.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>15,0</td>
<td>10.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

1. Introduction to physiology

Description:
Functional organization. Communication, integration and homeostasis

Full-or-part-time: 6h 30m
 Theory classes: 1h 30m
 Laboratory classes: 2h
 Self study : 3h

2. Cardiovascular System

Full-or-part-time: 18h
 Theory classes: 6h
 Laboratory classes: 2h
 Self study : 10h

3. Respiratory System

Full-or-part-time: 14h
 Theory classes: 4h
 Laboratory classes: 2h
 Self study : 8h

4. Digestive System

Full-or-part-time: 16h 30m
 Theory classes: 4h 30m
 Laboratory classes: 2h
 Self study : 10h

5. Excretory System

Full-or-part-time: 15h
 Theory classes: 3h
 Laboratory classes: 2h
 Self study : 10h
<table>
<thead>
<tr>
<th>Course</th>
<th>Full-or-part-time</th>
<th>Theory classes</th>
<th>Laboratory classes</th>
<th>Self study</th>
</tr>
</thead>
<tbody>
<tr>
<td>6: Endocrine System</td>
<td>16h 30m</td>
<td>4h 30m</td>
<td>2h</td>
<td>10h</td>
</tr>
<tr>
<td>7: Nervous System</td>
<td>16h 30m</td>
<td>4h 30m</td>
<td>2h</td>
<td>10h</td>
</tr>
<tr>
<td>8: Tegument System, support and movement</td>
<td>14h 30m</td>
<td>4h 30m</td>
<td>2h</td>
<td>8h</td>
</tr>
<tr>
<td>9: Immune System</td>
<td>16h 30m</td>
<td>4h 30m</td>
<td>2h</td>
<td>10h</td>
</tr>
<tr>
<td>10: Reproductive System</td>
<td>16h</td>
<td>3h</td>
<td>2h</td>
<td>11h</td>
</tr>
</tbody>
</table>

Description:
Spermatogenesis, oogenesis, fertilization process, embryo implantation and hormonal control
GRADING SYSTEM

The evaluation will be conducted through the assessment by teachers of student work, individual and/or group performed on a face-to-face basis, and appropriately weighting the following activities:
2 tests conducted individual face-off during the year.
guided laboratory exercises.

Weight in the final evaluation:
Two partial checks: 35% + 35%
Lab practices exam: 15%
Oral presentation: 10%

Generic skills: Effective oral and written communication: 5%

This subject has revaluation exam. The students will be able to access the re-assessment test that meets the requirements set by the EEBE in its Assessment and Permanence Regulations (The students will be able to access the re-assessment test that meets the requirements set by the EEBE in its Assessment and Permanence Regulations).

BIBLIOGRAPHY

Basic: