COURSE: ANIMAL AND PLANT BIOLOGY

SUBJECT MATTER: Biology
MODULE: Basic
PROGRAM: Degree in Biotechnology

GENERAL FEATURES *
Type: ☑Basic training, □Compulsory, □Elective
☐Final Degree Project, □Practicum

Duration: Semestral
Semester / s: 2
Number of ECTS credits: 4
Language / s: Spanish, Catalan,

DESCRIPTION

SHORT DESCRIPTION AND JUSTIFICATION (of the meaning of the course in relation to the studies. Between 100 and 200 words)

The course aims to provide students with knowledge of biology Animal and Plant for understanding the biological development and functioning of animals and plants, as these are fundamental to any student in the area of biotechnology.

The subject includes as essential contents the following: Cell types of animals and plants. Embryonic origin. Plant diversity Form and operation of the plants. Animal diversity Form and function of animals. Human and social aspects of biology.

COMPETENCES (of the course placed in relation to the pre-assigned competences in the subject matter)

• Possess and understand knowledge of animal and plant biology that is part of the basis of general secondary education, and is usually found at a level, which although supported by advanced textbooks, also includes some aspects that involve knowledge from the vanguard of its field of study. (CB1)
• Acquire the ability to gather and interpret relevant data in the area of animal and plant biology, to make judgments that include a reflection on relevant social, scientific or ethical issues. (CB3)
• Be able to understand and apply basic knowledge of Biology, for its application in the field of Biotechnology. (E1)

PREVIOUS REQUIREMENTS * (modules, subject matters, courses or knowledge necessary for the follow-up of the subject. State previous courses required to be completed)

The competences of the previous educational stages.

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CONTENTS (List the content of the course, with up to two level detail)

1. DEVELOPMENT BIOLOGY
Processes responsible for the transformation of a fertilized egg into a being with specialized cells, tissues and organs. Common principles of the development of multicellular organisms. Animal development Development of plants. Human and social aspects.

2. PLANT DIVERSITY

3. ANIMAL DIVERSITY
Morphological diversification of animals. Lineages of animals. Invertebrates Vertebrates

4. FUNCTIONNING OF PLANTS

5. FUNCTIONING OF ANIMALS

METHODOLOGY

LEARNING ACTIVITIES * (Complete the table relating activities, workload in ECTS credits, and competences.)

<table>
<thead>
<tr>
<th>Learning Activities</th>
<th>ECTS Credits</th>
<th>Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>2.2</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Case and Problem-Solving Sessions</td>
<td>0.1</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Seminars</td>
<td>0.1</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Practical and Lab Work</td>
<td></td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Presentations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Study</td>
<td>1.5</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Assessment Tasks (Exams, Continuous Assessment...)</td>
<td>0.1</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4</td>
<td>B1, B3, E1</td>
</tr>
</tbody>
</table>

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TEACHING METHODOLOGY (justify the teaching methodology in relation to the competences and course contents. Between 100 and 200 words)

- Oral presentation of the contents with the support of multimedia tools for the projection of presentations, use of the blackboard to develop concepts and examples and encourage the active participation of students.
- Contribution of questionnaires and collections of problems for the individual or group work of the student. Resolution of problems in the classroom to work on the approach, resolution and interpretation of results.
- Use of the IQS virtual campus to provide the student with teaching material (presentations, articles and questionnaires) and to maintain a continuous student-teacher communication.

ASSESSMENT

ASSESSMENT METHODS * (Complete the table relating assessment methods, competences, and weight percentage in the course qualification)

<table>
<thead>
<tr>
<th>Assessment methods</th>
<th>Weight</th>
<th>Competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Exam</td>
<td>50%</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Midterm Exam/s</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Continuous Assessment Activities</td>
<td>40%</td>
<td>B1, B3, E1</td>
</tr>
<tr>
<td>Reports and Presentations</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Lab or Field Work</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Projects</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Host Student Evaluation</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
<td>B1, B3, E1</td>
</tr>
</tbody>
</table>

LEARNING OUTCOMES (Explanation of the student's achievements that allow the assessment of competences, relating them to the competences and the assessment methods)

- To know the animal and vegetable diversity.
- To understand the morphological and functional organization in tissues and organs.
- To be able to assess the social side of biology

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QUALIFICATION

The evaluation of the course will consider the qualifications of the follow-up activities (AS), participation (P) and the final exam (EF). Thus, the grade of the subject will be obtained from:

- **Follow-up activities (AS)** notes, which consist of:
  - A control CO (activity of approximate duration of 1 hour planned in the academic calendar).
  - A work T (follow-up activity of the student's learning, of variable duration and carried out during class time).
- Class participation.
- A final exam (EF) (which includes all the material and approximate duration of 2 hours).

The Final Note (NF) is calculated as follows:

\[
NF = 0.30 \cdot CO + 0.1 \cdot T + 0.1 \cdot P + 0.5 \cdot EF
\]

Controls, work, participation and final examination (CO, T, P, EF) are calculated on a scale of 0 to 100 points. In order to pass the course, the note of the monitoring and participation (TP) must be greater than or equal to 40 to pass the course and final exam (EF) should be greater than or equal to 50.

The final grade NF is calculated in the same scale and transform the scale of 0 to 10 points (NFE), using the following equations:

- **Suspensio** NFE= 0,0 + (NF-0)*5,0/60,0 \( NF < 60 \)
- **Aprobado** NFE= 6,0 + (NF-60)*1,0/10,0 \( 60 \leq NF \leq 69 \)
- **Notable** NFE= 7,0 + (NF-70)*2,0/15,0 \( 70 \leq NF \leq 84 \)
- **Sobresaliente** NFE= 9,0 + (NF-85)*1,0/15,0 \( NF \geq 85 \)

It should be noted that the final pass of the subject corresponds to a 5 (on a scale of 0 to 10 points) and a 60 on a scale of 0 to 100 points. In the student's file, his / her mark will be on the scale from 0 to 10 points.

If the note of follow-up or participation activities or that of the final exam is lower than the minimum mark set, the final grade will be the lowest of both grades transformed to scale 0 to 10.

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ASSESSMENT OF THE COMPETENCES (Describe the grading system for each competence in relation with the assessment tasks)

For the evaluation of the B1, B3 and E1 competences, the final grade of the subject will be used as an indicator.

BIBLIOGRAPHY (Recommended and accessible to the student.)


DOCUMENT HISTORY

PREVIOUS REVISIONS (Indicate date and author / s, first the most recent one)

CURRENT REVISION (Indicate date and author / s)
Mars 10th, Dra Maria Auset Vallejo

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