UAB
Universitat Autònoma de Barcelona

Professional and Research Practices I

Code: 45000
ECTS Credits: 10

2025/2026

Degree	Type	Year
Applied Microbiology	OB	0

Contact

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Teachers

Jesus Aranda Rodriguez

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

Previous knowledge in General Microbiology is necessary, and previous knowledge in one of the disciplines of Applied Microbiology (molecular, environmental, health, microbial ecology, virology, etc.) is recommended.

Objectives and Contextualisation

The objective of this module is to integrate the student into a team, become familiar with the company, hospital or research group in the microbiological field chosen, and acquire the necessary knowledge and skills to perform the tasks typical of the work environment in which he/she is located.

Competences

- Analyse research results to obtain new products or processes, assessing their industrial and commercial viability with a view to transferring them to society.
- Develop critical reasoning within the subject area and in relation to the scientific or business context.
- Display knowledge of the most up-to-date methodology used in environmental, molecular, industrial and clinical microbiology.
- Interpret results from microbiological analyses in order to take appropriate decisions and propose solutions to biological problems in different areas.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.

Learning Outcomes

1. Analyse research results to obtain new products or processes, assessing their industrial and commercial viability with a view to transferring them to society.
2. Develop critical reasoning within the subject area and in relation to the scientific or business context.
3. Know the standard techniques most commonly used in the various areas of applied microbiology.
4. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
5. Understand the data from microbiological analyses and the limitations of the techniques used.
6. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.

Content

This module has two typologies: professional or research practices. The student must choose one of the two.

In professional practices, the student will be integrated into the processes of production, quality control, analytical, etc. carried out in the collaborating companies. The companies and institutions in which the practices will be carried out cover all the main sectors of the application of microbiology in our society: food, diagnostics, industrial, biotechnology and environmental.

In the research practices the student will be integrated into a research group located in a university, research center or company, carrying out research tasks and initiating a research career that can be continued, once the master's degree has finished, with a doctorate. The realization of research practices in research groups that belong to the UAB or external to this institution will be proposed.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Practical completion	230	9.2	
Type: Autonomous			
Personal study	6	0.24	
Preparation of written assignement	6	0.24	
Reading articles / reports of interest	7	0.28	

- Preparation of written assignement

- Practical completion

- Reading articles / reports of interest

- Personal study

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Supervisor evaluation	50%	0.5	0.02	1, 5, 3, 2, 4, 6
Written assignment	50%	0.5	0.02	1, 5, 3, 2, 4, 6

At the end of the module the student will submit a written assignment to the coordinator of the practical module in which he/she will explain the work done. This work evaluated by the coordinator of the practical module will represent 50% of the mark.

For this subject, the use of Artificial Intelligence (AI) technologies is permitted exclusively for support tasks, such as bibliographic or information searches, text correction, or translations. The student must clearly identify which parts have been generated using this technology, specify the tools used, and include a critical reflection on how these have influenced the process and the final outcome of the activity. Lack of transparency in the use of AI in this assessed activity will be considered academic dishonesty and may result in a partial or total penalty in the activity's grade, or more severe sanctions in serious cases.

The other 50% of the mark will correspond to the evaluation carried out by the student's supervisor at the company or research group, considering not only of the technical skills but also of other attitudes of the student.

The final mark of the module will be the average of the one obtained in each of the evaluated activities. To pass the subject, the student must obtain a score equal to or greater than 5 (out of 10) for each of the assessment activities.

This subject/module does not include the single assessment system.

Bibliography

The student will be responsible for the search and consultation of the literatura necessary to carry out their work. For this the student may receive the help of his/her supervisor.

Software

No specific software is needed in this subject.

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PEXTm) Pràctiques externes i pràcticum (màster)	1	Spanish	first semester	morning-mixed