

## **Professional Perspectives of Microbiology**

Code: 101012 ECTS Credits: 6

2024/2025

Degree	Туре	Year
2500502 Microbiology	ОТ	4

### Contact

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**Teachers** 

Esther Julian Gomez

### **Teaching groups languages**

You can view this information at the <u>end</u> of this document.

### **Prerequisites**

Although there is no official prerequisite, students are advised to review the concepts that refer to the microbial world, previously studied in the subjects of the 2nd and 3rd course of the Microbiology Degree.

### **Objectives and Contextualisation**

It is an optional subject of the Microbiology degree that introduces students to the different professional fields in which a microbiologist carries out his/her work. A general overview of the fields of work of microbiologists will be give, both in the business and research fields.

## **Learning Outcomes**

- CM23 (Competence) Explain the contribution of microbiology professionals to the current socio-economic, biomedical and environmental advancement, in order to provide innovative responses to the needs and demands of society.
- CM24 (Competence) Critically assess the current role of women in the professional field of microbiology.
- 3. CM25 (Competence) Review in an integrative way the knowledge and skills that are applied in the different professional areas of microbiology, as well as the demands and challenges that these areas present.

- 4. KM34 (Knowledge) Identify the different areas of work of graduates in microbiology both in their business and research angle, as well as in teaching and dissemination.
- 5. KM35 (Knowledge) Describe the contribution of microorganisms to the industrial, biotechnological, environmental, biomedical or agri-food sectors from the different professional fields of microbiology.
- 6. KM36 (Knowledge) Define the future perspectives of microbiology based on current scientific contributions in this field in both basic and applied research.
- 7. SM34 (Skill) Relate concepts of the biology of microorganisms and the tools for their study and manipulation, with their diverse applications in the professional fields of microbiology.

### Content

The subject will provide knowledge on the following topics:

- Incorporation of the microbiologist in the professional field. The role of the microbiologist in the agrifood sector, environmental, industrial, education, human health, etc...
- Research in basic and applied microbiology. Research developed in our environment related to different areas of microbiology.

## **Activities and Methodology**

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Seminars	30	1.2	CM23, CM24, CM25, KM34, KM35, KM36, SM34, CM23
Visits	15	0.6	CM24, CM25, KM35, SM34, CM24
Type: Supervised			
Tutorials	5	0.2	CM25, SM34, CM25
Type: Autonomous			
Individual reading	40	1.6	CM24, CM25, KM34, SM34, CM24
Individual study	45	1.8	CM23, CM24, CM25, KM34, KM35, KM36, SM34, CM23
Preparation of test questions	6	0.24	CM24, CM25, KM34, KM36, SM34, CM24

#### Seminars:

- Sessions given by specialists in different fields of basic and applied Microbiology.

#### Visits:

- Visits to companies, centers and facilities where they work on issues related to Microbiology are scheduled.

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
Participation in the different activities	Up to 25%	0	0	CM24, KM34, SM34
Submission of test questions	15	0	0	CM23, CM24, CM25, KM34, KM36, SM34
Theory assessment (multiple-choice test)	60	9	0.36	CM24, CM25, KM34, KM35, SM34

The evaluation of the subject will be individual.

Continuous evaluation

Compulsory attendance to two of the programmed visits.

#### SEMINARS:

- Written test: multiple-choice tests corresponding to the content of each one of the different activities carried out (corresponding to 60% of the mark) one exam per semester.
- Each student will have assigned one o more seminars / visits to prepare a maximum of 10 multiple-choice questions that reflect the most relevant concepts of the subject discussed (15% of the mark)
- Mandatory attendance to more than 85% of the seminars.

Attendance in the different activities will have an evaluation of up to 25% of the overall mark. The student who exceeds the established lack of assistance in this guide will suspend the subject.

A student will obtain the rate of "Not Evaluable" if he/she attend to less than 67% of the evaluation activities.

#### Single assessment

Compulsory attendance to two of the programmed visits.

## SEMINARS:

- Written test: multiple-choice tests corresponding to the content of each one of the different activities carried out (corresponding to 60% of the mark) one exam at the end of the course.
- Each student will have assigned one o more seminars / visits to prepare a maximum of 10 multiple-choice questions that reflect the most relevant concepts of the subject discussed (15% of the mark)
- Mandatory attendance to more than 85% of the seminars.

Attendance in the different activities will have an evaluation of up to 25% of the overall mark.

The student who exceeds the established lack of assistance in this guide willsuspend the subject.

## **Bibliography**

The bibliography will be available on the UAB intranet and will be adapted every year to the seminar scheduled.

In this link, it can be found an infographic prepared by the Library Service to facilitate the location of electronic books: https://ddd.uab.cat/pub/guibib/224929/bibrecdigitals.pdf

The teachers will give adequate advice to the students in this regard.

## **Software**

No specific software is needed in this subject.

# Language list

Name	Group	Language	Semester	Turn
(TE) Theory	74	Undefined	annual	morning-mixed