

Syllabus

Course description

Course title	Biotechnologies: Principles and Applications
Course code	46052
Scientific sector	ING-INF/01
Degree	PhD in Food Engineering and Biotechnologies PhD in Advanced Systems Engineering (free choice)
Semester	2 nd
Year	I
Academic year	2022/2023
Credits	3
Modular	No

Total lecturing hours	30
Attendance	Mandatory (70% to take the exam)
Prerequisites	None
Course page	

Specific educational objectives	Basic understanding of materials, sensor technologies and data analysis approaches and applications related to the biological field, including plants, medical and food applications; praxis with presentations and scientific writing on topics related to the course.
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Learning outcomes	<p><u>Knowledge and understanding</u>: theoretical know-how on technologies, materials, data analysis and sensing strategies for smart agriculture, food and biomedical applications.</p> <p><u>Applying knowledge and understanding</u>: practical know-how on technologies, materials, data analysis and sensing strategies for smart agriculture, food and biomedical applications.</p> <p><u>Making judgments</u>: a critical evaluation of the current sensing technologies, material science and data analysis approaches used in smart agriculture, food technology and biomedical fields.</p> <p><u>Communication skills</u>: ability to give a presentation supported by power-point and writing a short article.</p> <p><u>Learning skills</u>: performing a literature review on a given topic; extracting the most valuable information and embedding it in a presentation, scientific writing.</p>
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Assessment	There will be no final exam. A presentation of an article covering the course topics is mandatory to fulfill the course requirements.
Assessment language	English
Evaluation criteria and criteria for awarding marks	Quality of the final presentation and of the scientific article.
Required readings	Materials provided by the lecturer
Supplementary readings	Materials provided by the lecturer