

## Syllabus

### Course description

<b>Course title</b>	Materials and sensors for Food Engineering and Biotechnologies
<b>Course code</b>	46039
<b>Scientific sector</b>	ING-INF/01
<b>Degree</b>	PhD in Food Engineering and Biotechnologies PhD in Advanced Systems Engineering (free choice)
<b>Semester</b>	1 <sup>st</sup>
<b>Year</b>	I
<b>Academic year</b>	2023/2024
<b>Credits</b>	3
<b>Modular</b>	NO

<b>Total lecturing hours</b>	30
<b>Attendance</b>	Preferrable
<b>Prerequisites</b>	None
<b>Course page</b>	

<b>Specific educational objectives</b>	Basic understanding of materials and sensor technologies; praxis with presentations and scientific writing on topics related to the course.
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<b>Lecturer</b>	Dr. Martina Aurora Costa Angeli, Email: <a href="mailto:MartinaAurora.CostaAngeli@unibz.it">MartinaAurora.CostaAngeli@unibz.it</a> <a href="https://www.unibz.it/en/faculties/engineering/academic-staff/person/44155-martina-aurora-costa-angeli">https://www.unibz.it/en/faculties/engineering/academic-staff/person/44155-martina-aurora-costa-angeli</a>
<b>Scientific sector of the lecturer</b>	ING-INF/01
<b>Teaching language</b>	English
<b>Office hours</b>	After consultation and agreement with the lecturer
<b>Teaching assistant (if any)</b>	
<b>Office hours</b>	
<b>List of topics covered</b>	Introduction to materials and nanostructures, sensor technologies, fabrication techniques, printing techniques, additive manufacturing; overview of the application in the fields of biotechnology, food engineering and agriculture.
<b>Teaching format</b>	Presentations and theoretical classroom lessons, individual literature review, presentation on a given topic. The material for lectures will be available on Teams.

<b>Learning outcomes</b>	<u>Knowledge and understanding</u> : theoretical know-how on sensor technologies and materials.
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	<p><u>Applying knowledge and understanding</u>: practical know-how on sensor technologies and materials.</p> <p><u>Making judgments</u>: a critical evaluation of the current sensor technologies.</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>
<b>Assessment</b>	A presentation is mandatory to fulfill the course requirements.
<b>Assessment language</b>	English
<b>Evaluation criteria and criteria for awarding marks</b>	Quality of the final presentation and of the scientific article.
<b>Required readings</b>	Materials provided by the lecturer
<b>Supplementary readings</b>	Materials provided by the lecturer