Freie Universität Bozen
Libera Università di Bolzano
Università Liedia de Bulsan

Syllabus
Course description

Course title	Materials and sensors for Food Engineering and Biotechnologies
Course code	46039
Scientific sector	ING-INF/01
Degree	PhD in Food Engineering and Biotechnologies PhD in Advanced Systems Engineering (free choice)
Semester	1st
Year	I
Academic year	2022/2023
Credits	3
Modular	NO

Total lecturing hours	30
Attendance	Preferrable
Prerequisites	None
Course page	

Specific educational objectives	Basic understanding of materials and sensor technologies; praxis with presentations and scientific writing on topics related to the course.

Lecturer	Dr. Martina Aurora Costa Angeli, Email: MartinaAurora.CostaAngeli@unibz.it https://www.unibz.it/it/faculties/sciencetechnology/academic-staff/person/44155-martina-aurora-costa-angeli
Scientific sector of the lecturer	ING-INF/01
Teaching language	English
Office hours	After consultation and agreement with the lecturer
Teaching assistant *(if any)*	
Office hours	
List of topics covered	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.
Teaching format	Presentations and theoretical classroom lessons, individual literature review, presentation on a given topic. The material for lectures will be available on Teams.

Learning outcomes	Knowledge and understanding: theoretical know-how on sensor technologies and materials.

	Applying knowledge and understanding: practical know-how on sensor technologies and materials. Making judgments: a critical evaluation of the current sensor technologies. Communication skills: ability to give a presentation supported by power-point and writing a short article. Learning skills: performing a literature review on a given topic; extracting the most valuable information and embedding it in a presentation, scientific writing.
Assessment	There will be no final exam. A presentation 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