Syllabus

Course Description

Course Title	Sensors and biosensors for agri-food applications
Course Code	44753
Course Title Additional	
Scientific-Disciplinary Sector	IINF-01/A
Language	English
Degree Course	Master in Food Sciences for Innovation and Authenticity
Other Degree Courses (Loaned)	
Lecturers	dr. Manuela Ciocca, Manuela.Ciocca@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/44873 dr. Giuseppe Ciccone, Giuseppe.Ciccone@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/49145
Teaching Assistant	
Semester	First semester
Course Year/s	2nd
CP	6
Teaching Hours	30
Lab Hours	30
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	1. Sensor materials and technologies 2. Basics of sensors and measurement techniques 3. Overview and operational principles of chemical, optical, physical and biosensors 4. Applications of sensor systems to food science and agriculture 5. Outlook in future sensor technologies

Course Topics	Sensors materials and technologies measurement techniques operational principles of sensors applications of sensors
Keywords	sensors; biosensors;food science;agriculture
Recommended Prerequisites	
Propaedeutic Courses	None
Teaching Format	Lectures and Lab sessions
Mandatory Attendance	No
Specific Educational Objectives and Learning Outcomes	The course aim is to provide the attendants theoretical and practical fundamentals of the operation principles of sensors. Particular emphasis will be devoted to chemical, physical and biosensors used in food technology and agriculture. The aim of the course is to offer a general overview of scientific contents combined with specific professional skills and knowledge. In addition, the student will acquire soft skills connected to scientific presentations or reports, as well as practical skills related to sensor use and implementation.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	presentation + oral
Evaluation Criteria	The presentation and the oral assessment will be averaged to a final grade.
Required Readings	Slide materials from the course
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Industry, innovation and infrastructure