Syllabus

Course Description

Course Title	Sensory analysis and tasting techniques
Course Code	40416
Course Title Additional	
Scientific-Disciplinary Sector	AGRI-07/A
Language	English
Degree Course	Bachelor in Enogastronomy in Mountain Areas
Other Degree Courses (Loaned)	
Lecturers	Dr. Edoardo Longo, Edoardo.Longo@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/35783 Prof. Emanuele Boselli, Emanuele.Boselli@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/37607
Teaching Assistant	
Semester	First semester
Course Year/s	3rd
CP	6
Teaching Hours	36
Lab Hours	24
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	Introduction to sensory analysis; physiology of sensory perception; sensory attributes in food and wine; chemical and physical basis of sensory perceptions; tasting techniques; sensory compatibility and principles of pairing; sensory evaluation methods; sensory panels and calibration; data analysis in sensory tastings; innovation in sensory science.

Course Topics	The course covers the fundamentals of sensory perception (sight, smell, taste, touch, hearing) and their interactions in food and wine evaluation. Students learn principles of neurogastronomy and cross-modal effects, along with protocols for sensory methods, panel calibration, and data interpretation. Case studies focus on wine profiling, the sensory analysis of virgin olive oils, and applications to other food products. Practical sessions and student presentations highlight the relationship between chemical composition, sensory descriptors, and consumer acceptance. Overview of sensory methodologies applied to specifically selected wines, including round table discussions, triangle test, and RATA, followed by the interpretation and statistical analysis of the resulting data. Critical reading of scientific literature, discussion of innovative approaches, and guest seminars connect theory with professional practice in gastronomy and food sciences.
Keywords	sensory analysis; tasting
Recommended Prerequisites	Basic knowledge of chemistry and mathematics
Propaedeutic Courses	None
Teaching Format	Frontal lectures, exercises, labs, projects, seminars by experts, participation in events, fairs, and visits to public institutions or private companies related to the topics of the course.
Mandatory Attendance	No
Specific Educational Objectives and Learning Outcomes	Knowledge and Understanding Upon completion, students will demonstrate comprehensive knowledge of sensory analysis principles, including the sensory systems (taste, smell, touch) and methods used in the tasting and evaluation of food and wine. Applying Knowledge and Understanding Students will be able to apply sensory analysis methods to real-world contexts, conducting tastings, evaluating the sensory quality of food and beverages, and using industry-standard tools and techniques in enogastronomy. Making Judgments Students will develop the capacity to critically interpret sensory data, make objective quality assessments, and offer well-reasoned judgments regarding the sensory properties of food and drink.

	They will be able to reflect on cultural, geographic, and production factors that influence sensory experiences. Communication skills Students will demonstrate the ability to effectively communicate sensory analysis outcomes. This includes the use of specialized terminology to describe sensory qualities and share their evaluations with both experts and non-experts. Learning Skills Students will acquire the skills needed for lifelong learning in the field of sensory analysis and tasting. They will be able to independently seek out new knowledge, follow developments in sensory science, and adapt their skills to new methods and trends in enogastronomy.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Written exam with review questions (multiple-choice and open-ended questions on theoretical and practical concepts) to test knowledge application skills, including a test on the physiology of taste and sensory data analysis.
Evaluation Criteria	Students are assessed through a written exam (multiple-choice and open questions) testing both theoretical knowledge and practical application of sensory analysis. Evaluation focuses on understanding of perception mechanisms, correct use of methods and terminology, critical interpretation of sensory data, and the ability to connect scientific literature with practical case studies. Final grades (18–30/30, with honors) reflect overall mastery and clarity.
Required Readings	Keynotes provided by the lecturers
Supplementary Readings	Sensory evaluation practices by H. Stone (Elsevier): https://www.sciencedirect.com/book/9780126726909/sensory-evaluation-practices Sensory Evaluation techniques by Meilgaard, Civille, Carr, Carr (CRC)

	Valutazione sensoriale, by Ella Pagliarini, Hoepli Editore Atlante sensoriale dei prodotti alimentari by Società Italiana di Scienze Sensoriali (all and other readings are available at the central unibz library)
Further Information	
Sustainable Development Goals (SDGs)	Good health and well-being, Quality education, Partnerships fot the goals, Industry, innovation and infrastructure, Responsible consumption and production, Decent work and economic growth