COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brașov
1.2 Faculty	Food and tourism
1.3 Department	Food and Tourism Engineering and Management
1.4 Field of study[1]	Engineering and management
1.5 Study level[2]	Master
1.6 Study programme/ Qualification	Engineering and management in luxury hospitality (in English)

2. Data about the course

2.1 Name of course			Sensory evaluation of food and beverage					
2.2 Course convenor			Lecturer Alina Maier					
2.3 Seminar/ laboratory/ project convenor			Lecturer Alina Maier					
2.4 Study year	II	2.5 Semester	III	2.6 Evaluation type	C	2.7 Course status	Content[3]	SC
							Attendance type[4]	NCPC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	4	out of which: 3.2 lecture	2	3.3 seminar/ laboratory/ project	2
3.4 Total number of hours in the curriculum	56	out of which: 3.5 lecture	28	3.6 seminar/ laboratory/ project	28

Time allocation	hours
Study of textbooks, course support, bibliography and notes	5
Additional documentation in libraries, specialized electronic platforms, and field research	5
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays	6
Tutorial	
Examinations	3
Other activities...................................	

3.7 Total number of hours of student activity	19
3.8 Total number per semester	75
3.9 Number of credits[5]	5

4. Prerequisites (if applicable)

4.1 curriculum-related	• Students must have basic skills in food quality analysis.
4.2 competences-related	• Students must have basic skills in food quality analysis.

5. Conditions (if applicable)

5.1 for course development	• Modern computing technique
5.2 for seminar/ laboratory/ project development	• Analysis laboratory • Hygiene conditions; Laboratory coat

6. Specific competences and learning outcomes

Professional competences	**Cp.2 Provides advice to the industrial units visited on how to better supervise production to ensure correct diagnosis and resolution of manufacturing problems.** L.O. 2.1 Graduates will be able to develop and implement supervisory frameworks for managing production processes in luxury hospitality units, ensuring alignment with high-end quality standards and guest expectations. L.O. 2.2 Graduates will demonstrate the ability to identify, analyze, and diagnose production inefficiencies in luxury hospitality operations, such as food preparation, artisan bakery production, and premium beverage manufacturing. L.O. 2.3 Graduates will acquire the skills to propose and implement innovative solutions to resolve operational bottlenecks and enhance efficiency in high-end hospitality production systems. L.O. 2.5 Graduates will be able to recommend and integrate eco-friendly practices, such as circular economy principles and waste minimization strategies, into luxury manufacturing and production processes. **Cp.4 Develop processes and techniques for food production or food preservation. They engage in the design, development, construction and operation of industrial processes and techniques for food production.** L.O. 4.1 Graduates will be able to develop and implement innovative processes and techniques for high-end food production, ensuring efficiency, consistency, and adherence to luxury standards. **Cp.5 Conduct inspections and tests of services, processes or products to assess quality.** L.O. 5.1 Graduates will demonstrate the ability to evaluate the quality of high-end products, such as artisan baked goods, fine dining dishes, and luxury beverages, through systematic testing and analysis. L.O. 5.2 Graduates will acquire the skills to inspect and monitor production processes, such as culinary workflows or smart system operations, to ensure consistency and identify areas for improvement. L.O. 5.3 Graduates will be able to assess the quality of personalized guest services, ensuring that they meet or exceed the expectations of discerning luxury clientele through continuous testing and feedback mechanisms. L.O. 5.4 Graduates will acquire the skills to validate the quality of high-end dishes, plated desserts, and specialty beverages, ensuring compliance with premium culinary and safety standards.

Ct.2 Assume a leadership role.

L.O. 2.1 Graduates will demonstrate the ability to develop and implement strategic plans, guiding teams in luxury hotels, restaurants, and cafes towards achieving organizational goals while maintaining the highest standards of service excellence.

Ct.3 Manage material and financial resources.

L.O. 3.1 Graduates will demonstrate the ability to allocate financial resources effectively across luxury hospitality operations, ensuring optimal budget utilization while maintaining high-end quality standards.

L.O. 3.2 Graduates will acquire the skills to assess, manage, and optimize material resources, such as premium ingredients, sustainable materials, and high-end furnishings, to minimize waste and maximize value.

L.O. 3.3 Graduates will be able to integrate sustainability principles into the management of financial and material resources, promoting eco-friendly practices and long-term cost savings in high-end hospitality operations.

L.O. 3.4 Graduates will acquire the skills to evaluate and select high-quality, sustainable materials for engineering luxury hospitality spaces, ensuring durability, aesthetic appeal, and cost-efficiency in alignment with project requirements.

Ct.4 Manage quality related aspects.

L.O. 4.1 Graduates will demonstrate the ability to design and implement comprehensive quality assurance frameworks tailored to the high standards expected in luxury hotels, restaurants, and cafes.

L.O. 4.2 Graduates will acquire the skills to monitor and evaluate the production of artisan bakery, pastry, and premium beverages to ensure consistency and compliance with luxury quality benchmarks.

L.O. 4.3 Graduates will master the ability to manage and implement quality certification processes, such as premium labeling systems, ensuring that hospitality products and services meet regulatory and brand-specific standards.

L.O. 4.4 Graduates will develop expertise in analyzing guest feedback and operational data to implement ongoing improvements in service excellence and personalized experiences in luxury properties.

L.O. 4.5 Graduates will demonstrate the ability to integrate sustainable practices into quality management processes, ensuring that eco-friendly initiatives enhance, rather than compromise, the high standards of luxury hospitality.

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	• The courses are designed to provide students with the knowledge and skills to become an effective sensory professional in food production and quality control.
7.2 Specific objectives	• Develop the practical skills necessary to set up their own discrimination tests, create a test protocol, apply real test procedures and interpret what the results mean for different food products. • Learn how to evaluate the sensory quality of food products using statistical descriptive analysis.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
Theory of smell and taste perception, revision of fundamentals plus additional new information, trigeminal stimuli	Presentation Interactive course	4	
Cross modalities	Presentation Interactive course	4	
Flavour release depending on the existing matrix	Presentation	4	

	Interactive course		
Development of food chemistry sensors for "sensory science"	Presentation Interactive course	4	
Comparison of analytical sensory analysis and hedonic sensory analysis	Presentation Interactive course	4	
Hedonic sensory analysis: classical methods, current developments and new methods	Presentation Interactive course	4	
Analytical sensory analysis: Methods for determining best-before dates, simple descriptive testing – creating definitions as the basis for profile testing, qualitative descriptive analysis (profile testing), projective mapping	Presentation Interactive course	4	

Bibliography

1. Gail Vance Civille, B. Thomas Carr, Katie E. Osdoba, Sensory Evaluation Techniques, CRC Press, 2024
2. Herbert Stone, Rebecca N. Bleibaum, Heather A. Thomas, Sensory Evaluation Practices, Academic Press, 2020
3. Hildegarde Heymann, Harry T. Lawless, Sensory Evaluation of Food: Principles and Practices, Springer Science & Business Media, 2013
4. Sensory Analysis for Food and Beverage Quality Control. A Practical Guide. A volume in Woodhead Publishing Series in Food Science, Technology and Nutrition. Book ◘ 2010
5. The Stability and Shelf Life of Food. A volume in Woodhead Publishing Series in Food Science, Technology and Nutrition. Book ◘ Second Edition ◘ 2016
6. F. Sinesio, SENSORY EVALUATION, Editor(s): Paul Worsfold, Alan Townshend, Colin Poole, Encyclopedia of Analytical Science (Second Edition), Elsevier, 2005, Pages 283-290, ISBN 9780123693976
7. Food & Beverage Tomorrow: Why are luxe brands embracing food and drink concepts, Insights, 2023, https://www.cbre.com/insights/articles/food-and-beverage-tomorrow-why-are-luxe-brands-embracing-food-and-drink-concepts
8. Rodriguez-Sanchez, Carla & Sellers-Rubio, Ricardo. (2020). Sustainability in the Beverage Industry: A Research Agenda from the Demand Side. Sustainability. 13. 186. 10.3390/su13010186.
9. Falcó, J. M., Sánchez-García, E., Marco-Lajara, B., Millán-Tudela, L. A., & Popescu, C. R. (2024). Exploring Eco-Friendly Approaches: Case Studies of Environmental Management in Wineries. In C. Popescu, J. Martínez-Falcó, B. Marco-Lajara, E. Sánchez-García, & L. Millán-Tudela (Eds.), Building Sustainable Human Resources Management Practices for Businesses (pp. 74-91). IGI Global Scientific Publishing. https://doi.org/10.4018/979-8-3693-1994-9.ch005

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
Basic Tasting Techniques and focus on Flavour Recognition	Case studies. Applications	2	
Basic Tasting Techniques and focus on Rank Rating	Case studies. Applications	2	
Advanced Training with a focus on Descriptive Tasting	Case studies. Applications	2	
Basic Training for Professional Evaluation	Case studies. Applications	2	
Food Specific Sensory Training	Case studies. Applications	2	
Focused training on main off-flavours and taints	Case studies. Applications	2	
Training on off-flavours which appear after production	Case studies. Applications	2	
Training on flavours that are making a product so special	Case studies. Applications	2	
Background information on the problem of aroma	Case studies. Applications	2	

defects			
Demonstration of common aroma defects in different foods	Case studies. Applications	2	
Flavour Descriptive Terminology and Time Intensity Measurement: Learn the different flavour profiles, methods, different descriptive terminology, and how flavour is enhanced by the environment.	Case studies. Applications	2	
Demonstrate how to conduct common sensory analysis techniques	Case studies. Applications	2	
Apply sensory analysis techniques to determine a food product's shelf life	Case studies. Applications	2	
Design sensory analysis experiments to achieve a particular goal	Case studies. Applications	2	

Bibliography

1. Gail Vance Civille, B. Thomas Carr, Katie E. Osdoba, Sensory Evaluation Techniques, CRC Press, 2024
2. Herbert Stone, Rebecca N. Bleibaum, Heather A. Thomas, Sensory Evaluation Practices, Academic Press, 2020
3. Hildegarde Heymann, Harry T. Lawless, Sensory Evaluation of Food: Principles and Practices, Springer Science & Business Media, 2013
4. Sensory Analysis for Food and Beverage Quality Control. A Practical Guide. A volume in Woodhead Publishing Series in Food Science, Technology and Nutrition. Book ◘ 2010
5. The Stability and Shelf Life of Food. A volume in Woodhead Publishing Series in Food Science, Technology and Nutrition. Book ◘ Second Edition ◘ 2016
6. F. Sinesio, SENSORY EVALUATION, Editor(s): Paul Worsfold, Alan Townshend, Colin Poole, Encyclopedia of Analytical Science (Second Edition), Elsevier, 2005, Pages 283-290, ISBN 9780123693976
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9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The content of the subject is in line with what is being studied in university centres abroad. Meetings have been held with representatives of the business world and with teachers with experience in the field in order to adapt the content of the course to the needs of the labour market.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade

10.4 Course	• Students demonstrate a correct understanding of concepts and theories. • Ability to explain and make connections between concepts. • Construction of logical responses supported by evidence. • Ability to propose effective solutions for complex situations. Meeting requirements and providing accurate answers.	Oral exam	70%
10.5 Seminar/ laboratory/ project	• Ability to apply theoretical concepts to solve practical problems. • Effective use of tools and technologies specific to the field. • Active participation in interactive activities, including questions and comments. Initiative to contribute to projects, assignments, or discussions.	Laboratory colloquium	30%

10.6 Minimal performance standard

- Knowing the fundamental knowledge related to the field;
- Promotion of the laboratory colloquium;
- Obtaining the minimum grade of 5, in at least half of the existing subjects on the exam ticket to be able to achieve the final average.

This course outline was certified in the Department Board meeting on 12.09.2024 and approved in the Faculty Board meeting on 12.09.2024

Note:

[1] Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);

2) Study level – choose from among: Bachelor / Master / Doctorat;

3) Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ SC (synthesis course)/ **AC** (advanced course);

4) Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);

5) One credit is the equivalent of 25 study hours (teaching activities and individual study).