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		Food waste management in luxury hotels						
2.2 Course convenor		**Associate Professor** dr. eng. Mirabela Ioana Lupu						
2.3 Seminar/ laboratory/ project convenor		**Associate Professor** dr. eng. Mirabela Ioana Lupu						
2.4 Study year	I	2.5 Semester	II	2.6 Evaluation type	E	2.7 Course status	Content[3]	SC
							Attendance type[4]	CPC

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

3.1 Number of hours per week	3	out of which: 3.2 lecture	1	3.3 seminar/ laboratory/ **project**	2
3.4 Total number of hours in the curriculum	42	out of which: 3.5 lecture	14	3.6 seminar/ laboratory/ **project**	28
Time allocation					hours
Study of textbooks, course support, bibliography and notes					14
Additional documentation in libraries, specialized electronic platforms, and field research					10
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays					22
Tutorial					10
Examinations					2
Other activities....................................					0

3.7 Total number of hours of student activity	58
3.8 Total number per semester	100
3.9 Number of credits[5]	4

4. Prerequisites (if applicable)

4.1 curriculum-related	• General technologies in the food industry, Unit operations in the food industry, Agro-food raw materials
4.2 competences-related	• Basic concepts of physics, biochemistry, etc. • Identification, description, and appropriate use of concepts specific to food science and food safety.

5. Conditions (if applicable)

5.1 for course development	• Modern computing techniques
5.2 for seminar/ laboratory/ project development	• Hygiene conditions; lab coats, specific equipment

6. Specific competences and learning outcomes

Professional competences

Cp2. 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.

Cp3. Analyze production processes in order to make improvements. Perform analysis to reduce production losses and overall manufacturing costs.

L.O.3.1. Graduates will be able to evaluate production workflows in luxury hospitality, such as artisan food preparation or beverage manufacturing, to identify inefficiencies and propose data-driven process enhancements.

L.O. 3.2 Graduates will acquire the skills to analyze and mitigate production losses in high-end culinary and hospitality operations, including strategies for sustainable waste management and precision engineering.

Cp4. 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.

L.O. 4.2 Graduates will demonstrate expertise in designing eco-friendly and energy-efficient preservation methods, such as cold chain logistics and advanced packaging technologies, tailored for luxury hospitality operations.

L.O. 4.3 Graduates will acquire the skills to engineer precision systems for crafting premium bakery, pastry, dairy and meat products, balancing tradition with cutting-edge technology to meet luxury market demands.

L.O. 4.4 Graduates will be capable of designing and managing food production systems that incorporate sustainable, local sourcing and minimize food waste while maintaining the highest quality for luxury guests.

L.O. 4.5 Graduates will be able to design and optimize kitchen and service workflows in high-end restaurants,

ensuring seamless operations, reduced waste, and enhanced guest experiences.

	Ct.1 **Organize the team.**
	L.O. 1.1 Graduates will demonstrate the ability to foster a positive and inclusive work environment, promoting
	teamwork and collaboration among diverse staff in luxury hotels, restaurants, and cafes.
	L.O. 1.2 Graduates will acquire the skills to actively listen to team members, provide constructive feedback, and address concerns effectively to enhance staff performance and morale in high-end hospitality settings.
	L.O. 1.3 Graduates will be capable of supervising and motivating teams in demanding luxury environments, such as fine-dining restaurants or event venues, ensuring professionalism and service excellence.
	L.O. 1.4 Graduates will develop the ability to mediate conflicts among staff members with empathy and diplomacy, fostering a harmonious and productive work atmosphere in luxury hospitality operations.
	L.O. 1.5 Graduates will demonstrate the ability to build respectful and professional relationships with team members and stakeholders from diverse cultural backgrounds, ensuring alignment with the global nature of luxury hospitality.
Transversal competences	Ct3. **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.

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

7.1 General course objective	• The course "Food Waste Management in Luxury Hotels" provides students with an in-depth understanding of food waste management within luxury hotels, focusing on strategies for reduction, reuse, and recycling through the implementation of sustainable and innovative practices.
7.2 Specific objectives	• Development and implementation of effective food waste management plans that contribute to the sustainability of the hotel business and enhance brand image. • Fundamental principles of the circular economy, methods for preventing food waste, and innovative approaches to ecological management. • Modern technologies, sustainability policies, and legal regulations regarding food waste, with relevant examples from the hospitality industry.

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
1. Introduction to Food Waste Management	Lectures and PowerPoint Presentations	2	
2. Challenges of Food Waste in Luxury Hotels	Lectures and PowerPoint Presentations	2	
3. Strategies for Preventing and Reducing Food	Lectures and PowerPoint	2	

Waste	Presentations		
4. Recycling and Reusing Food Waste	Lectures and PowerPoint Presentations	2	
5. Sustainability Policies and Legal Regulations	Lectures and PowerPoint Presentations	2	
6. Technologies and Innovations in Food Waste Management	Lectures and PowerPoint Presentations	2	
7. Implementation of a Food Waste Management Plan	Lectures and PowerPoint Presentations	2	

Bibliography

1. Elina Närvänen, Nina Mesiranta, Malla Mattila, Anna Heikkinen. Food Waste Management: Solving the Wicked Problem. Publisher Palgrave Macmillan, Edition1st ed. 2020. ISBN-13978-3030205607
2. Garrett Leonard Riley. Food Waste: Practices, Management and Challenges (Waste and Waste Management), Publisher Nova Science Pub IncPublication, 2016. ISBN-13978-1634850254
3. Jeenat Aslam, Hilal Ahmad Parray, Afroz Aslam, Ruby Aslam, Sustainable Food Waste Management. Sustainability Assessment and Policy Analysis, Spinger, 2017. ISBN: 978-3-319-50087-4
4. Michael Blakeney, Food Loss and Food Waste, Elgar Publisher, 2019, ISBN: 978 1 78897 538 4
5. Angelique Lombarts, Huub Ruël, Sustainable Hospitality Management. Designing Meaningful Encounters with Talent and Technology, Emerald Publishing Limited, 2020, ISBN: 9781839092671

8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
1. Assessment of the Quantity and Types of Food Waste in a Luxury Hotel	Lecture, Practical Applications, Teamwork	2	
2. The Impact of Portion Sizes on Food Waste in Luxury Restaurants	Lecture, Practical Applications, Teamwork	2	
3. Implementation of a Food Waste Management System in Luxury Hotels	Lecture, Practical Applications, Teamwork	4	
4. Repurposing Food Waste for the Production of New Food Products	Lecture, Practical Applications, Teamwork	6	
5. Managing Food Waste Based on Restaurant Types in a Luxury Hotel	Lecture, Practical Applications, Teamwork	2	
6. Optimizing Inventory and Reducing Food Waste in Luxury Hotels	Lecture, Practical Applications, Teamwork	2	
7. Training Hotel Staff on Food Waste Management	Lecture, Practical Applications, Teamwork	2	
8. Packaging and Preservation Technologies to Reduce Food Waste in Luxury Hotels	Lecture, Practical Applications, Teamwork	4	
9. Analyzing the Impact of a "Zero Food Waste" Policy in a Luxury Hotel	Lecture, Practical Applications, Teamwork	2	
10. Food Waste and Social Responsibility in Luxury Hotels	Lecture, Practical Applications, Teamwork	2	

Bibliography

1. Elina Närvänen, Nina Mesiranta, Malla Mattila, Anna Heikkinen. Food Waste Management: Solving the Wicked Problem. Publisher Palgrave Macmillan, Edition1st ed. 2020. ISBN-13978-3030205607
2. Garrett Leonard Riley. Food Waste: Practices, Management and Challenges (Waste and Waste Management), Publisher Nova Science Pub IncPublication, 2016. ISBN-13978-1634850254

3. Jeenat Aslam, Hilal Ahmad Parray, Afroz Aslam, Ruby Aslam, Sustainable Food Waste Management. Sustainability Assessment and Policy Analysis, Spinger, 2017. ISBN: 978-3-319-50087-4

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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 course content aligns with what is taught in other university centers both nationally and internationally.

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

- Understanding fundamental concepts related to the field, reflecting the essential competencies targeted by the course.
- Passing the laboratory colloquium.
- The student must be able to express ideas coherently and logically, either in writing or orally.
- Addressing each subpoint of the exam topic and passing them with the minimum required grade.
- Implementing a food waste management system in luxury hotels.

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).