

## SUBJECT OUTLINE

### 1. Information on the study programme

1.1 Academic institution	<b>UNIVERSITY OF ORADEA</b>
1.2 Faculty	<b>FACULTY OF ENVIRONMENTAL PROTECTION</b>
1.3 Department	<b>ANIMAL SCIENCE AND AGRITOURISM</b>
1.4 Field of study	<b>ENGINEERING AND MANAGEMENT</b>
1.5 Cycle of study	<b>MASTER</b>
1.6 Study programme/Qualification	<b>MANAGEMENT OF TOURISM AND CATERING UNITS / MASTER</b>

### 2. Information on the discipline

2.1 Name of discipline	<b>Equipment in catering, tourism and their maintenance</b>						
2.2 Course holder	<b>PhD. eng. DONCA Gheorghe</b>						
2.3 Seminar/Laboratory/Project holder	<b>PhD. eng. DONCA Gheorghe</b>						
2.4 Year of study	II	2.5 Semester	III	2.6 Type of evaluation	E	2.7 Regime of discipline	C

(C) Compulsory; (O) Optional; (E) Elective

### 3. Total estimate time (hours per semester of didactic activities)

3.1 Number of hours per week	2	out of which: 3.2 course	1	out of which 3.3 seminar/laboratory/project	1
3.4 Total hours in the curriculum	28	out of which: 3.5 course	14	out of which 3.6 seminar/laboratory/project	14
Time allotment					hours
Study assisted by manual, course support, bibliography and notes					26
Additional documentation in the library/ on specialised electronic platforms and in the field					22
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					32
Tutorship					1
Examinations					2
Other activities					
<b>3.7 Total hours of individual study</b>	<b>97</b>				
<b>3.9 Total hours per semester</b>	<b>125</b>				
<b>3.10 Number of credits</b>	<b>5</b>				

### 4. Prerequisites (where appropriate)

4.1 curriculum	
4.2 competences	

### 5. Conditions (where appropriate)

5.1. related to course	
5.2. related to seminar/laboratory/ project	Compliance with Labour Safety and Emergency Standards in laboratory.

<b>6. Specific competences acquired</b>	
Professional competences	<p>C1.1. Creative and innovative use of techniques and technologies for the operation and maintenance of equipment and installations in tourism.</p> <p>C1.2. Explaining and interpreting the way of differentiated and complex action of the elements leading to the inappropriate exploitation of the equipment and installations in tourism.</p> <p>C1.3. Use of concepts, methods, techniques and research tools specific to the development of technological processes of exploitation and sustainable maintenance.</p> <p>C1.4. Using Criteria and Performing Methods to Evaluate Exploitation and Maintenance Technologies, Diagnosis, Critical Analysis and Foundations of Solutions.</p> <p>C1.5. Designing advanced (sustainable) technology to limit the negative effects of inappropriate practices in exploitation of machinery and installations in tourism.</p>
Transversal competences	<p>CT1. Performing our own tasks with professionalism and rigor and taking decisions specific to team work in accordance with ethical values and principles.</p>

### 7. Objectives of discipline (coming from the specific competences acquired)

7.1 General objective	The course aims at familiarizing students with the management and techniques of operation and maintenance of the machinery, equipment and installations in the field of tourism industry. Students have the opportunity to get acquainted with the main types of machines, equipment and installations, to learn practical possibilities regarding their exploitation, maintenance and repair possibilities.
7.2 Specific objectives	Laboratory work is designed to provide practical skills in the construction, operation, repair and maintenance of machinery, equipment and installations. The contents of the presented works are based on the need to deepen the problems presented in the course. Students have the opportunity to know the parts, to understand the functioning of machines, machines and installations and to identify their usual defects. They will understand the complexity and usefulness of these installations and treat them as such. Knowledge is needed to develop the right skills to address specific production problems faced by a specialist in the field.

### 8. Content\*/

<b>8.1 Course</b>	Methods of teaching	No. of hours / Remarks
1. Introduction. Quality of technical systems. ISO Standards. Innovative engineering.	Oral presentation, demonstration and discussions	1
2. Types of machine maintenance and management	Idem	1
3. Wear and lubricate the technical systems.	Idem	1
4. Common machine defects and remedies	Idem	1
5. Computer systems for the efficiency of machine operation. Systems for the Fourth Industrial Revolution.	Idem	1
6. Computer systems to improve machine maintenance efficiency	Idem	1

7. Machinery specific to the mechanical processing of culinary products	Idem	1
8. Machinery specific to the heat treatment of culinary products	Idem	1
9. Machinery and equipment specific to hotel industry buildings	Idem	1
10. Machinery and auxiliary plant in hotel buildings	Idem	1
11. Transport equipment and installations inside buildings	Idem	1
12. Equipment and facilities for transport outside buildings	Idem	1
13. Technical and economic choice of equipment and installations	Idem	1
14. Analysis and course conclusions	Idem	1
<b>Bibliography</b>		
1. Botez E. – <i>Utilaje și instalații pentru alimentația publică și turism</i> , Editura Academica, Galați, 1999		
2. Bungău C. – <i>Ingineria sistemelor de producție</i> , Editura Universității din Oradea, 2005		
3. Ciocîrlan A., Constantin M. – <i>Asamblarea, întreținerea și repararea mașinilor și instalațiilor</i> , Editura ALL Educational, București, 2002		
4. Donca Gh. – <i>Bazele utilajelor și instalațiilor pentru alimentația publică și turism</i> , Editura Universității din Oradea, 2009		
5. Donca Gh. – <i>Utilaje și instalații pentru alimentația publică și agroturism</i> , Editura Universității din Oradea, 2010		
6. Donca Gh. – <i>Mașini și instalații zootehnice</i> , Editura Universității din Oradea, 2015		
7. Donca Gh. – <i>Mentenanța utilajelor și instalațiilor agroalimentare</i> , Editura Universității din Oradea, 2011		
8. Donca Gh. – <i>Mașini și instalații zootehnice, Îndrumător lucrări practice de laborator</i> , Editura Universității din Oradea, 2017		
9. Donca Gh. – <i>Mic dicționar de inginerie tehnică pentru domeniul agrozootehnic și agroturistic</i> , Editura Universității din Oradea, 2012		
10. Donca Gh. – <i>Baza energetică pentru agricultură</i> , Editura Universității din Oradea, 2012		
11. Mitroi C. ș.a. – <i>Tehnologia de întreținere, revizii și reparații pentru mașinile și instalațiile din zootehnie</i> , Editura Ceres, București, 1980		
12. Teodorescu N. – <i>Mentenanță generală în domeniul ingineriei mecanice</i> , Editura A.G.I.R., București, 2008		
<b>8.2 Seminar</b>	Methods of teaching	No. of hours / Remarks
<b>8.3 Laboratory</b>	Methods of teaching	No. of hours / Remarks
Work safety and emergency training.	Demonstration, experimentation, discussions, problem-solving and teamwork	1
1. Basic study of machinery, installations and plant		
2. Apparatus for measuring the electrical and non-electrical quantities of the equipment. Determining common machine defects	idem	1
3. Typical devices and tools used in maintenance	idem	1
4. The study of lubrication systems	idem	1
5. Comparison of existing EAM and ERP systems, the opportunity to use them in the tourism industry	idem	1
6. Study of CMMS systems	idem	1
7. The study of mechanical food processing systems	idem	1
8. Study of Thermal Processing Systems of Foods	idem	1
9. Parameters of equipment and installations for water and microclimate provision	idem	1

10. Video surveillance, protection and alarm systems	idem	1
11. Study of the characteristics of escalators and lifts	idem	1
12. Study of the parameters of passenger cars	idem	1
13. Study of ecological systems used in the tourism industry	idem	1
14. Determining the technical and economical parameters of the equipment that affect the economy of the tourism activity.	idem	1
<b>8.4 Project</b>		

#### Bibliography

1. Deneş C. – *Fiabilitatea și mentenabilitatea sistemelor tehnice*, Editura Alma Mater, Sibiu, 2003
2. Donca Gh. – *Utilaje și instalații pentru alimentația publică și turism, Îndrumător pentru lucrări de laborator*, Editura Universității din Oradea, 2013
3. Donca Gh. – *Bazele utilajelor și instalațiilor pentru alimentația publică și turism*, Editura Universității din Oradea, 2009
4. Donca Gh. – *Utilaje și instalații pentru alimentația publică și agroturism*, Editura Universității din Oradea, 2010
5. Donca Gh. – *Mașini și instalații zootehnice, Îndrumător lucrări practice de laborator*, Editura Universității din Oradea, 2017
6. Fleșer T. – *Mentenanța utilajelor tehnologice*, Editura Oficiului pentru Informare și Documentare în Industria Construcțiilor de Mașini, București, 1998
7. Mitroi A., Udroui A. – *Automatizarea proceselor în producția zootehnică*, Editura Arvin Press, București, 2003
8. Verzea I. ș.a. – *Managementul activității de mentenanță*, Iași, Editura Polirom, 1999.

\* The content, respectively the number of hours allocated to each course / seminar / laboratory / project will be detailed during the 14 weeks of each semester of the academic year.

### **9. Corroboration of discipline content with the expectations of the epistemic community, professional associations and representative employers from the field corresponding to the study programme**

The content of the discipline is adapted and satisfies the requirements imposed by the labour market, being agreed by social partners, professional associations and employers in the field of the master program. The content of the discipline can be found in the curriculum of the specialization in other university centres in Romania that have accredited this specialization.

### **10. Evaluation**

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	For the pass mark (5), all subjects must treated to the minimum standards. Larger notes are in proportion to the correctness of the fixes.	Exam written 2 hours (It consists of 3 subjects in the subject of the course. For the passing of the exam, each subject should treated for minimum 5.).	60%
10.5 Seminar			
10.6 Laboratory	All laboratory work must done. Recovering only an outstanding laboratory (in the last week of the semester) allowed.	Monitoring the activity and the results obtained.	40%
10.7 Project			

10.8 Minimum standard of performance
Designing a functional model of optimal use of equipment and resources in the tourism industry.

Date of completion

26.09.2020

Signature of course holder

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Signature of seminar  
laboratory/project holder

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Date of approval in the department

Signature of the Head of Department  
Ass. Prof. PhD. eng. MAERESCU Cristina

Dean signature  
Prof. PhD. eng. CHEREJI Ioan

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