# **DISCIPLINE SHEET**

### 1. Data about program

1.1 Academic institution	1.1 Institution of higher	UNIVERSITY OF ORADEA
	education	
1.2 Faculty	1.2 Faculty	FACULTY OF ENVIRONMENTAL
		PROTECTION
1.3 Department	1.3 Department	FOOD ENGINEERING
1.4 Field of study	1.4 Field of study	FOOD ENGINEERING
1.5 Cycle of study	1.5 Cycle studies	BACHELOR
1.6 Study	1.6	TPPA/ ENGINEER
programme/Qualification	Curriculum/Qualifications	

#### 2. Data about the disciplines

2.1 Name of discipline MILK TECHNOLOGY AND DEI			<b>RIVATIVE PRODUCTS</b>	S II			
			Project				
2.2 Course holder Lecturer HÎLMA ELENA							
2.3 Laboratory holder			Lectu	rer HÎLMA ELENA			
2.4 Year of study	IV	2.5 Semester	VIII 2.6 Type of Ex 2.7 Regime of C			Ob	
				evaluation		discipline	

Ob – Compulsory; As – associated; Op – Optional.

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

1

3.1 Number of hours per week	1	from which:2 course	-	3.3 project	1	
3.4 Total hours in the curriculum	14	din care: 28 course	-	3.6 project	14	
Time allotment	Time allotment					
					rs	
Study assisted by manual, course supp	port, bibl	iography and notes			0	
Additional documentation in the libra	ry/ on sp	ecialised electronic platforn	ns and i	n the field	1	
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					1	
Tutorship					3	
Examinations					5	
Additional documentation in the library/ on specialised electronic platforms and in the field					0	
3.7 Total hours of individual	10					
study						
<b>3.9 Total hours per semester</b>	24					

#### 4. Preconditii (acolo unde este cazul)

3.10 Number of credits

4.1 curriculum	Biochemistry, Food industry machinery, Milk processing technology
4.2 competences	Knowledge of milk components, knowledge of machinery in the food industry

#### **5. Prerequisites** (where appropriate)

5.1. related to course	
5.2. related to seminar/laboratory/	<ul> <li>Specific milk processing equipment for practical applications</li> </ul>
project	

6. Spec	rific competences acquired
ofessional mpetences	<ul> <li>Knowledge of raw milk</li> <li>Directing milk in production based on organoleptic, physico-chemical and microbiological qualities</li> <li>The parameters of the technological process and their influence on the finished products</li> <li>Technological calculations, justification of raw materials and materials</li> <li>Machines. Component parts, operating principle</li> </ul>
Pr C0	• Organoleptic, physico-chemical and microbiological characteristics of the finished products
Transversal competence	<ul> <li>Knowledge for managing the production and laboratory departments in milk processing units</li> <li>Quality control of milk and dairy products</li> </ul>

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

7.1 General objective	• Knowledge by students of raw materials, technological process, principle of
	operation of equipment
	• Technological calculations, consumption norms, justification of the raw material.
	• Quality of finished products, quality certification.
7.2 Specific objectives	Accumulation of knowledge to
	<ul> <li>processing in optimal conditions of milk;</li> </ul>
	• economic efficiency in the processing of raw materials, materials and auxiliary
	materials, justification of raw materials and materials,
	• operation of specific equipment,
	storage of finished products

# 8. Content \*

8.1 Course	Methods of teaching	No. of
		hours/Remarks
8.2. PROJECT		
1. Choosing the location of the production unit	Demonstration, analysis,	1
	and exposure	
2. Production organization. Qualitative reception of raw milk	Demonstration, analysis,	1
	and exposure	
3. Quantitative reception of milk, directing milk in production	Demonstration, analysis,	I
	and exposure	
4. Normalization of milk for drinking milk	Demonstration, analysis,	1
	and exposure	
5. Normalization of milk for acidic dairy products	Demonstration, analysis,	1
	and exposure	
6. Normalization of milk for the manufacture of cheese, milk	Demonstration, analysis,	1
powder	and exposure	
7. Cream justification, butter making	Demonstration, analysis,	1
	and exposure	
8. Daily manufacturing report	Demonstration, analysis,	1
	and exposure	
9. Choice of laboratory equipment	Demonstration, analysis,	1
	and exposure	
10. Choice of machines for receiving and pasteurizing milk	Demonstration, analysis,	1
	and exposure	
11. Choice of equipment for the manufacture of fresh dairy products	Demonstration, analysis,	1
	and exposure	
12. Choice of equipment for making cheeses, milk powder	Demonstration, analysis,	1
	and exposure	
13 Choice of butter manufacturing equipment	Demonstration, analysis,	1
	and exposure	
14 Staff selection, organizational char	Demonstration, analysis,	1
	and exposure	

#### Bibliography

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7. Georgescu Gh. 2005. Cartea producătorului și procesatorului de lapte. pag. 13-140; 254-276; 324-40. Editura Ceres, București.

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10. Rotaru G., Moraru C. 1997. Industrua alimentară. H.A.C.C.P. Calitate. Analiza riscurilor. Punctele critice de control. Ed. Academica, Galați.

# 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 study provides specialists for milk processing units, for distributors of equipment and additives in the dairy industry

#### 10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade	
10.4 Course				
10.5 Seminar	-	-	-	
10.6 Project	for note 5- knowledge of material 50% for note 10 - knowledge of material 100%	Continuous evaluation in the laboratory; knowledge verification laboratory	50% 50%	
10.7 Project	-	-	-	
10.8 Minimum standard of performance				
<ul> <li>Flaboration</li> </ul>	on of a project or process specific fo	od industry equipment usir	or concepts, theories and	

• Elaboration of a project or process specific food industry equipment, using concepts, theories and methods in the field

• The development of a technological project

• Preparation of a technical study by the efficient use of resources and sources of relevant and current documentation (including internet, databases, online courses.

Date of completionSignature of course holderSignature1.10.2020Lecturer Hîlma ElenaLecturer HîlmaE-mail: hilma elena@yahoo.comE-mail: hilma elenaE-mail: hilma

Signature of laboratory holder Lecturer Hîlma Elena E-mail: hilma elena@yahoo.com

Date of approval in the department

Signature of the Head of Department Assoc. Prof. PHD. Eng. Timar Adrian <u>atimar@uoradea.ro</u>

Dean signature Assoc. Prof. PHD. Eng.Maerescu Cristina Maria