

SUBJECT DESCRIPTION

1. Information on the study programme

1.1 The institution of higher education	UNIVERSITY OF ORADEA
1.2 Faculty	FACULTY OF ENVIRONMENTAL PROTECTION
1.3 Department	ENGINEERING OF FOOD PRODUCTS
1.4 Field of study	CONTROL AND EXPERTISE OF FOOD PRODUCTS
1.5 Cycle of study	BACHELOR
1.6 Program of study/Qualification	CONTROL AND EXPERTISE OF FOOD PRODUCTS/ ENGINEER

2. Information on the discipline

2.1 Name of discipline	General Technology in Food Industrie I						
2.2 Course holder	TIMAR ADRIAN						
2.3 Seminar/Laboratory/Project holder	Bura Giani						
2.4 Year of study	III	2.5 Semester	V	2.6 Type of evaluation	E	2.7 Regimen of the subject	C

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

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

3.1 Number of hours per week	4	out of which: 3.2 course	2	out of which 3.3 laboratory	2
3.4 Total hours from the curriculum	56	Of which: 3.5 course	28	out of which 3.6 laboratory	28
Time allotment					hours
Study assisted by manual, course support, bibliography and notes					42
Additional documentation in the library/ on specialised electronic platforms and in the field					15
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					10
Tutorship					10
Examinations					1
Other activities.....					5
3.7 Total hours of individual study	40				
3.9 Total hours per semester	96				
3.10 Number of credits	4				

4. Prerequisites (where appropriate)

4.1 curriculum	Vegetable raw materials, Animal raw materials
4.2 competences	Knowledge of animal and vegetable raw materials, knowledge of food industry machinery

5. Conditions (where appropriate)

5.1. related to course	Video projector, Screen
5.2. related to laboratory	Food industry specific equipment for practical applications

6. Specific competences acquired

Professional competences	<ul style="list-style-type: none"> • C2. Management of general engineering processes, operation of food industry facilities and equipment • C3. Supervision, management, analysis and design of food technologies from raw materials to the finished product.
Transversal competences	<p>CT1 skills. Applying strategies of perseverance, rigor, efficiency and responsibility at work, punctuality and taking responsibility for the results of personal activity, creativity, analytical and critical thinking, problem solving, etc., based on the principles, norms and values of the code of professional ethics in food .</p> <p>CT2. Applying interrelationship techniques within a team; amplifying and refining the empathic capacities of interpersonal communication and assuming specific attributions in carrying out the group activity in order to treat / resolve individual / group conflicts, as well as the optimal time management.</p> <p>CT3. Effective use of various ways and techniques of learning - training for the acquisition of information from bibliographic and electronic databases, both in Romanian and in a language of international circulation, as well as assessing the need and usefulness of extrinsic and intrinsic motivations of continuing education .</p>

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

7.1 General objective	Knowledge by students of the main technologies in the food industry, Preparation of technological manufacturing flows in the food industry.
7.2 Specific objectives	Knowledge by students of the functional connections that are established between raw materials, machinery and manufacturing technology

7. Contents*

8.1 Course	Methods of teaching	No. of hours
Milling technology	Interactive lecture with video projection	2
Milling technology	Interactive lecture with video projection	2
Milling technology	Interactive lecture with video projection	2
Technology for obtaining bakery and pastry products	Interactive lecture with video projection	2
Technology for obtaining bakery and pastry products	Interactive lecture with video projection	2
Technology for obtaining bakery and pastry products	Interactive lecture with video projection	2
Sugar technology	Interactive lecture with video projection	2
Sugar technology	Interactive lecture with video projection	2
Sugar technology	Interactive lecture with video projection	2
Soft drink manufacturing technology	Interactive lecture with video projection	2
Spirit beverage manufacturing technology	Interactive lecture with	2

	video projection	
Drinking water technology	Interactive lecture with video projection	2
Oil manufacturing technology	Interactive lecture with video projection	2
Fermented beverage manufacturing technology - beer	Interactive lecture with video projection	2

Bibliography

1. Banu C.; Alexe, Petre; Camelia Vizireanu, Procesarea industriei a cărnii, Ed. TEHNICĂ, București, 2002,
2. Banu C., Manualul inginerului de industrie alimentară vol. I și II Editura Tehnică, București 1998.
3. Banu Ct., Vizireanu C. – “Procesarea industrială a laptelui”, Ed. Tehnică, București, 1998,
4. Modoran D., Tehnologii fermentative, vol. I, Editura ICPIAF Cluj-Napoca 2002,
5. Modoran, Constanța – „Produse de panificație și patiserie”, Editura Agenția de Dezvoltare Regională Nord – Vest, 2003
6. Timar Adrian, Tehnologia Prelucrării Cărnii, Editura Universității din Oradea, 2010
7. Timar Adrian, Tehnologii generale în industria alimentară, Editura Universității din Oradea, 2010

8.2 Seminary	-	-
8.3 Laboratory	Methods of teaching	No. of hours
Preparation of technological flows in the milling industry, determination of gluten content	Demonstration, Practical Application	2
Preparation of technological flows in the milling industry, determination of protein content	Demonstration, Practical Application	2
Preparation of technological flows in the milling industry, determination of water content	Demonstration, Practical Application	2
Preparation of technological flows in the milling industry, determination of the Zeleny index	Demonstration, Practical Application	2
Preparation of technological flows for obtaining bakery and pastry products, determining the mineral content of flour	Demonstration, Practical Application	2
Preparation of technological flows in the manufacture of sugar, determination of types of carbohydrates - sucrose	Demonstration, Practical Application	2
Preparation of technological flows in the manufacture of sugar products, determination of temperature	Demonstration, Practical Application	2
Preparation of technological flows for the manufacture of spirits, determination of alcohol content	Demonstration, Practical Application	2
Preparation of technological flows in the manufacture of fermented beverages - wine, beer, vinegar determination of starch from seeds	Demonstration, Practical Application	2
Preparation of technological flows for the manufacture of soft drinks, determination of pH and CO ₂ content	Demonstration, Practical Application	2
Preparation of technological flows for vegetable processing, temperature determination	Demonstration, Practical Application	2
Preparation of technological flows for processing vegetables, determining the percentage of water	Demonstration, Practical Application	2

Preparation of technological flows for fruit processing, determination of carbohydrates	Demonstration, Practical Application	2
Preparation of technological flows for water conditioning, determination of free chlorine	Demonstration, Practical Application	2
Bibliography 1. Timar Adrian, Prelucrarea cărnii, îndrumar de laborator 2. Țibulcă Dorin; Sălăgean Claudiu-Dan Tehnologia de fabricație a preparatelor din carne - îndrumător de lucrări practice, Ed. BEDIN, Bistrița, 2004 *** Standarde de ramură, Preparate din carne, M.A.A. - C.O.C.P.C.I.A., București, 1991		

* 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.

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

Discipline provides specialists for processing and storage units, for distributors of equipment and additives in the food industry.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	- for grade 5 - 50% knowledge of the subject for grade 6 - 60% knowledge of the subject for grade 7 - 70% knowledge of the subject for grade 8 - 80% knowledge of the subject for grade 9 - 90% knowledge of the subject for grade 10 - knowledge of the subject in proportion of 100% (the student proves the consultation of the presented bibliographic material).	Summative assessment - exam - written or oral test	70%
10.5 Seminary			
10.6 Laboratory	for grade 5 - the student answers 50% of the questions correctly for grade 6 - the student answers 60% of the questions correctly for grade 7 - the student answers 70% of the questions correctly for grade 8 - the student answers 80% of the questions correctly for grade 9 - the student	Practical evaluation	30%

	answers 90% of the questions correctly for grade 10 - the student answers 100% of the questions correctly		
10.7 Project			
10.8 Minimum standard of performance			
Execution of specific operations in the production sphere based on the job description, respecting the norms and values of professional ethics. Realization of an individual project. Creating a portfolio with the identification and description of professional roles at the level of a subordinate team. Carrying out a team project. Elaboration of a technical study through the efficient use of relevant and current sources of documentation and resources (including internet, databases, online courses, etc.)			

Date of completion
01.10. 2020

Signature of the course holder
Ş.L. dr. Ing.Timar Adrian
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Signature of laboratory holder
Ş.L. dr. Ing.Bura Giani

Date of approval in the department
01.10. 2020

Signature of the Head of Department
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Dean signature
Prof. dr. eng. Chereji Ioan
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