

SUBJECT DESCRIPTION

1. Information on the study programme

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|-----------------------------------------|-------------------------------------------------------------|
| 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

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|---------------------------------------|-----------------------------------------|--------------|-----------|------------------------|----------|----------------------------|----------|
| 2.1 Name of discipline | General Technology in Food Industrie II | | | | | | |
| 2.2 Course holder | TIMAR ADRIAN | | | | | | |
| 2.3 Seminar/Laboratory/Project holder | Bura Giani | | | | | | |
| 2.4 Year of study | III | 2.5 Semester | VI | 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)

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|-----------------------------------------------------------------------------------------------|------------|--------------------------|-----------|-----------------------------|-----------|
| 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 | 64 | | | | |
| 3.9 Total hours per semester | 100 | | | | |
| 3.10 Number of credits | 5 | | | | |

4. Prerequisites (where appropriate)

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| 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)

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

6. Specific competences acquired

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| 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. |
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| Transversal competences | <p>CT1. Aplicarea strategiilor de perseverență, rigurozitate, eficiență și responsabilitate în muncă, punctualitate și asumarea răspunderii pentru rezultatele activității personale, creativitate, gândire analitică și critică, rezolvarea de probleme etc., pe baza principiilor, normelor și a valorilor codului de etică profesională în domeniul alimentar.</p> <p>CT2. Aplicarea tehnicilor de interrelaționare în cadrul unei echipe; amplificarea și cizelarea capacităților empatice de comunicare interpersonală și de asumare a unor atribuții specifice în desfășurarea activității de grup în vederea tratării / rezolvării de conflicte individuale/de grup, precum și gestionarea optimă a timpului.</p> <p>CT3. Utilizarea eficientă a diverselor căi și tehnici de învățare – formare pentru achiziționarea informației din baze de date bibliografice și electronice, atât în limba română, cât și într-o limbă de circulație internațională, precum și evaluarea necesității și utilității motivațiilor extrinseci și intrinseci ale educației continue.</p> |
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7. Objectives of discipline (coming from the specific competences acquired)

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| 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 |

8. Contents*

| 8.1 Course | Methods of teaching | No. of hours |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|
| Primary meat processing technology - transport, handling, subdivision, stunning, stabbing, bleeding | Interactive lecture with video projection | 2 |
| Primary meat processing technology - skinning, depilation, evisceration, slicing, selection | Interactive lecture with video projection | 2 |
| Technology of manufacture of meat preparations, thermal untreated meatstuff | Interactive lecture with video projection | 2 |
| Technology for the manufacture of meat preparations, semi-smoked meatstuff | Interactive lecture with video projection | 2 |
| Technology for the manufacture of meat preparations, smoked meats and specialties | Interactive lecture with video projection | 2 |
| Technology for the manufacture of meat preparations, semi-preserved and canned meat | Interactive lecture with video projection | 2 |
| Primary milk processing technology - milk reception, transport and conditioning | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - drinking milk I | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - milk consumption II - Pasteurization Dairy manufacturing technology - acid products - yogurt | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - acid products - yogurt | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - cheese | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - butter | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - melted cheese | Interactive lecture with video projection | 2 |
| Dairy manufacturing technology - fresh pearl cheese | 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. | | |

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| 3. | Banu Ct., Vizireanu C. – “Procesarea industrială a laptelui”, Ed. Tehnică, București, 1998, | |
| 4. | Timar Adrian, Tehnologia Prelucrării Cărnii, Editura Universității din Oradea, 2010 | |
| 5. | 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 CO2 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.

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

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 |
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| 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 answers 90% of the questions correctly for grade 10 - the student answers 100% of the questions correctly | Practical evaluation | 30% |
| 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
Ș.L. dr. Ing.Timar Adrian
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Signature of laboratory holder
Ș.L. dr. Ing.Bura Giani

Date of approval in the department

01.10. 2020

Signature of the Head of Department

Lecturer dr. eng. Timar Adrian

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Dean signature

Prof. dr. eng. Chereji Ioan

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