

## DISCIPLINE DESCRIPTION

**1. Information on the study programme**

1.1 Academic institution	UNIVERSITY OF ORADEA
1.2 Faculty	FACULTY OF ENVIRONMENTAL PROTECTION
1.3 Department	FOOD ENGINEERING
1.4 Field of study	FOOD ENGINEERING
1.5 Cycle of study	MASTER
1.6 Study programme/Qualification	AGRI-FOOD SAFETY AND SECURITY

**2. Information on the discipline**

2.1 Name of discipline	HACCP SYSTEM IN FOOD INDUSTRY						
2.2 Course holder	Timar Adrian						
2.3 Seminar/Laboratory/Project holder	Bura Giani						
2.4 Year of study	I	2.5 Semester	I	2.6 Type of evaluation	Ex	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	42	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					30
Additional documentation in the library/ on specialised electronic platforms and in the field					30
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					20
Tutorship					5
Examinations					2
Other activities.....					10
<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	Video projector, Screen
5.2. related to seminar/laboratory/ project	Food safety specific equipment for practical applications

**6. Specific competences acquired**

Professional competences	<p>C2 Monitoring of general engineering processes, operation of food industry facilities and equipment in order to implement HACCP</p> <p>C3 Know how to prepare and implement HACCP plan</p>
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>

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

7.1 General objective	The discipline aims to provide students with training so that they can design, implement and monitor an HACCP plan for the production, storage and distribution of foodstuff.
7.2 Specific objectives	<p>Emphasis will be placed on critical evaluation: legal norms,</p> <ul style="list-style-type: none"> <li>♣ the form and how to prepare the documentation for HACCP plan,</li> <li>♣ quality characteristics,</li> <li>♣ the potential risks that can occur in agri-food system,</li> </ul> <p>The technical aspect will be corroborated with the legislative one in the field</p>

#### 8. Content\*/

8.1 Course	Methods of teaching	No. of hours/ Remarks
HYGIENE-SANITARY QUALITY (SAFETY) OF FOODS AND THE ROLE OF THE HACCP I	Interactive lecture with video projection	1
SYSTEM HYGIENE-SANITARY QUALITY (SAFETY) OF FOOD AND THE ROLE OF THE HACCP II	Interactive lecture with video projection	1
HACCP SYSTEM PRINCIPLES	Interactive lecture with video projection	1
THE NEED TO COMPLY WITH THE PRELIMINARY REQUIREMENTS OF IMPLEMENTATION OF THE FOOD SAFETY	Interactive lecture with video projection	1

MANAGEMENT SYSTEM IN ACCORDANCE WITH HACCP PRINCIPLES		
MAIN FOOD SAFETY REGULATIONS - HACCP Steps I	Interactive lecture with video projection	1
MAIN FOOD SAFETY REGULATIONS - HACCP Steps II	Interactive lecture with video projection	1
MAIN FOOD SAFETY REGULATIONS - HACCP Steps III	Interactive lecture with video projection	1
IMPLEMENTATION OF THE HACCP SYSTEM - Analysis of potential risks I	Interactive lecture with video projection	1
IMPLEMENTATION OF THE HACCP SYSTEM - Analysis of potential risks II	Interactive lecture with video projection	1
IMPLEMENTATION OF THE HACCP SYSTEM - Analysis of potential risks III	Interactive lecture with video projection	1
HACCP SYSTEM IMPLEMENTATION - Determination of Critical Control Points (CCPs) and Critical Points (CPs)	Interactive lecture with video projection	1
IMPLEMENTATION OF THE HACCP SYSTEM I - Establishment of critical limits and Establishment of the monitoring system	Interactive lecture with video projection	1
IMPLEMENTATION OF THE HACCP SYSTEM - Establishment of corrective actions and Verification of the HACCP system	Interactive lecture with video projection	1
HACCP SYSTEM IMPLEMENTATION - HACCP MANAGEMENT SYSTEM SELF-CONTROL	Interactive lecture with video projection	1
Bibliography		
1. Banu C., Suveranitate, securitate și siguranță alimentară, Edit. Assab, București, 2007		
2. Timar Adrian, Siguranta alimentara, suport de curs		
Standardele : HACCP, ISO 22 000, SR 13462 – 1 : 2001 ; SR 13462 – 2 : 2002, SR 13462 – 3 : 2002		
8.3 Laboratory	Methods of teaching	No. of hours/ Remarks
1. Product information sheet	Demonstration, Practical Application	1
2. Elaboration of the technological flow diagram I	Demonstration, Practical Application	1
3. Elaboration of the technological flow chart II	Demonstration, Practical Application	1
4. Elaboration of the technological flow diagram III	Demonstration, Practical Application	1
5. Identification of potential hazards I	Demonstration, Practical Application	1
6. Identification of potential hazards II	Demonstration, Practical Application	1
7. Identification of potential hazards III	Demonstration, Practical Application	1
8. Assessment of potential risks	Demonstration, Practical	1

	Application	
9. Establishing CCPs	Demonstration, Practical Application	1
10. Setting up PCs	Demonstration, Practical Application	1
11. Standard values (target) and critical limits (tolerances)	Demonstration, Practical Application	1
12. Monitoring	Demonstration, Practical Application	1
13. Establish corrective actions	Demonstration, Practical Application	1
14. Preparation of documents and records and Verification – HACCP plan	Demonstration, Practical Application	1

#### Bibliography

1. Banu C., Suveranitate, securitate și siguranță alimentară, Edit. Assab, București, 2007
2. Timar Adrian, Siguranța alimentară, suport de curs
3. Standardele : HACCP, ISO 22 000, SR 13462 – 1 : 2001 ; SR 13462 – 2 : 2002, SR 13462 – 3 : 2002
4. Banu C.; Alexe, Petre; Camelia Vizireanu, Procesarea industrială a cărnii, Ed. TEHNICĂ, București, 2002,
5. Banu C., Manualul inginerului de industrie alimentară vol. I și II Editura Tehnică, București 1998.
6. Banu Ct., Vizireanu C. – “Procesarea industrială a laptelui”, Ed. Tehnică, București, 1998,
7. Modoran D., Tehnologii fermentative, vol. I, Editura ICPIAF Cluj-Napoca 2002,
8. Modoran, Constanța – „Produse de panificație și patiserie”, Editura Agenția de Dezvoltare Regională Nord – Vest, 2003
9. Timar Adrian, Tehnologia Prelucrării Cărnii, Editura Universității din Oradea, 2010  
Timar Adrian, Tehnologii generale în industria alimentară, Editura Universității din Oradea, 2010

\* 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 knowledge to food industry specialists for positions in charge of Food Safety Programs implementation

#### **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	Summative assessment - exam - written or oral test	70%

	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).		
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%
10.8 Minimum standard of performance			
Execution of specific operations in the food safety 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.) in the topic of food safety.			

Date of completion  
01.10. 2020

Signature of the course holder  
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Signature of laboratory holder  
Ș.L. dr. Ing. Bura Giani

Date of approval in the department  
01.10. 2020

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Dean signature  
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