DISCIPLINE CHART

1. Data about program

1.1 Institution of Higher Education	**UNIVERSITY OF ORADEA**
1.2 Faculty	**ENVIRONMENTAL PROTECTION**
1.3 Department	**ANIMAL HUSBANDRY and AGROTOURISM**
1.4 Field of study	**ENGINEERING AND MANAGEMENT IN AGRICULTURE AND RURAL DEVELOPMENT**
1.5 Cycle studies	**LICENSE**
1.6 Study Program/ Qualification	**ENGINEERING AND MANAGEMENT IN PUBLIC NUTRITION AND AGROTOURISM**

2. Data about discipline

2.1 Name of discipline			**ELEMENTS OF CHEMISTRY AND BIOCHEMISTRY, AGRICULTURAL PRODUCTS**				
2.2 The holder of the course activities			Lecturer PhD. Eng. MARELE DANIELA CAMELIA				
2.3 The holder of the seminar/lab/project			Lecturer PhD. Eng. MARELE DANIELA CAMELIA				
2.4 Year of study	I	2.5 Semester	II	2.6 Type of evaluation	Exam	2.7 Type of discipline	I

(I) Impusă; (O) Opţională; (F) Facultativă

3. Total estimated time (hours per semester of teaching activities)

3.1 Hours per week		4	From wich: 3.2 cours		2	3.3 seminar/lab/project	2
3.4 Total hours from curricula		56	From wich: 3.5 cours		28	3.6 seminar/lab/project	28
	Distribution time						ore
	Study after course support manual, bibliography and notes						14
	Additional documentation in the library, electronic platforms and on the ground						15
	Seminars/training laboratories, themes, essays, portfolios						24
	Tutoring						12
	Examination						4
	Another activities.....						
3.7 Total hours of individual study		**69**					
3.9 Total hours of semester		**125**					
3.10 Number of credits		**5**					

4. Prerequisites(where applicable**)**

4.1 of curriculum	(Conditionings)
4.2 competencies	

5. Conditions (where applicable)

5.1. of the cours	Lecture hall equipped with projector
5.2. of the seminar/lab/project	Corresponding laboratory

6. Specific competencies gained	
Professional competence	- be familiar with the terminology used and to demonstrate proper use of looseness in notions; - making calculations and applications demonstrations, to solve specific problems. - information systems management: software applications-operating and customization, based on specific indicators. - know the Foundation theoretically and logically in choices made which demonstrate the ability of analysis and interpretation of situations; - to acquire the skills of reasoning, analysis and evaluation of situations; - to develop habits of proper use of tools and materials needed
Crosscutting competence	- to apply responsibly, rules and values principles of professional ethics in professional tasks and identify objectives, available resources, stages, terms of execution terms achievement and related risks - identify roles and responsibilities in a multidisciplinary team and the application of techniques of networking and effective work in a team - identify training opportunities and efficient use, for their own development, sources of information and communication resources and training assisted (Internet portals, software applications, databases database, on-line courses, etc. - demonstrate concern for further training through the training of practical thinking skills; - demonstrate involvement in scientific activities, such as the drafting of articles and studies;

7. Objectives of discipline

7.1 General objectiv of discipline	▪ Discipline aims to provide the necessary theoretical knowledge, being structured in two parts: the first part deals with the main classes of organic compounds that are the basis of biochemical compounds,
7.2 Specifics objectives	▪ the student is able to demonstrate that he acquired knowledge to understand the notions studied . ▪ the student is able to apply the basic principles and methods in solving problems. ▪ the student is able to select the optimum methods of chemical analysis.

8. Content*

8.1 Cours	Teaching methods	Nr. hours
1.Introduction to the biochemistry study. The importance of biochemistry.	Participative lecture, debate, exposure, problem-solving,	2
2. Glucids. 2.1. Monoglucide. 2.2. Oligoglucide. 2.3 Polyglucides.		6

3. Lipids.	giving examples.	2
4. Protein. 4.1. Amino acids. 4.2. Peptide. 4.3. Protein.		2
5. Elements of metabolism.		2
6. Nucleic acids. Nitrogen bases		4
7. Vitamins. 7.1 Water-soluble vitamins. 7.2. Liposoluble vitamins.		4
8. Enzymes. 8.1 Enzymatic specificity. 8.2 Factors influencing enzymatic activity. 8.3 Classification of enzymes.		2
9. Chemical composition of cereals.		4
Bibliography		
C.D.Neniţescu ,Chimie organică, Editura Didactica şi Pedagogică, Bucureşti 1980		
Neamţu G..Cămpeanu G. , Socaciu Carmen , Biochimie vegetală,Editura Didactica şi Pedagogică, Bucureşti 1999		
Alfa Xenia Lupea ,Biochimie, Editura Politehnica Timişoara,2002		
8.2 Seminar	Teaching methods	Nr. hours
- is not the case		
8.3 Laboratory	Discussions, practical execution of laboratory work, processing and interpretation of results	
1.The main constituents of vegetal organisms. Acknowledgment of water and mineral salts. Determination of moisture and raw ash.		2
2. Qualitative determination of carbohydrates. The reaction of the silver mirror. Reduction reaction of cupric salts.		2
3. Reactions of oligoglucides and polyglucides. The Barfoed reaction. Inverting of sucrose. Starch hydrolysis.		2
4. Quantitative determinations of carbohydrates. Determination of carbohydrates by Schoorl method..		2
5. Soluble fat. Determination of the degree of roasting.		2
6.The acrolein test. Identification of fatty acids by saponification. Determination of saponification index.		2
7. Determination of iodine index. Determination of acidity index. Determination of the percentage of peroxides.		2
8. Determination of the percentage of peroxides.		2
9. General identification reactions for amino acids and proteins. Protein precipitation reaction		2
10. Hydrolysis of nucleoproteins		2
11. Isolation and analysis of yeast invertase		2
12. Isolation and analysis of catalase from potatoes.		2
13. Reactions to identify water-soluble and liposoluble vitamins		2
14 . Presentation themes.		
8.4 Project		
- is not the case		
Bibliography		
C.D.Neniţescu ,Chimie organică, Editura Didactica şi Pedagogică, Bucureşti 1980		
Neamţu G..Cămpeanu G. , Socaciu Carmen , Biochimie vegetală, Editura Didactica şi Pedagogică, Bucureşti 1999		
Alfa Xenia Lupea ,Biochimie, Editura Politehnica Timişoara,2002		

Gabriela Vicaş, Simona Vicaş – Lucrări practice de chimie organică şi biochimie – Editura Universităţii din oradea, 2001.

* It will detail the content, i.e. the number of hours allocated to each course/seminar/lab/project during the 14 weeks of each semester of the academic year

9. While the content of the discipline with the expectations of the representatives of the community, professional associations and employers ' representatives in the field programme

- The content of the discipline is consistent with what is being done in other universities in the country and abroad.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Assessment methods	10.3 Share in final note
10.4 Cours	-the correctness and completeness of knowledge, -coherence and logic, -the degree of assimilation of language, -criteria which concerns aspects of conscientiousness, attitudinal study.	The written assessment (in session)	60%
		Active participation in courses.	10 %
10.5 Seminar	-		
10.6 Laboratory	criteria which concerns aspects of conscientiousness, attitudinal self-study, -the ability of application in practice -the ability to run the team, experimetele -ability to synthesize results.	The written assessment (during semester): theme.	20%
		Active participation in practical works.	10%
10.7 Project	-		
10.8 Minimum performance standard: knowledge of fundamental elements of theory.			

Date	Signature holder of the cours	Signature holder of the seminar/lab/project
15.05.2021	Lecturer PhD. eng.Marele Daniela Camelia marele_dana@yahoo.com	Lecturer PhD Eng.Marele Daniela Camelia marele_dana@yahoo.com
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Date

Signature director of the department

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Signature of Dean

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