Annex 6

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			SECONDARY METABOLIC PRODUCTS INVOLVED IN					
			EN	SURI	NG THE QUALITY OF	F AGI	RICULTURAL PRODUCTS	
2.2 Course holder			Ass	sociate	professor dr.Purcărea Co	rnelia	L	
2.3 Seminar/Laboratory/Project holder			Ass	ociate	e professor dr.Purcărea Co	ornelia	L	
2.4 Year of study II 2.5 Semester				III	2.6 Type of evaluation	Ex	2.7 Regime of discipline	0
(C) Compulsory (O) Optional: (E) El				10				

(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:	1	out of which 3.3	1		
		3.2 course		seminar/laboratory/project			
3.4 Total hours in the curriculum	28	out of which:	14	out of which 3.6	14		
		3.5 course		seminar/laboratory/project			
Time allotment	Time allotment 1						
Study assisted by manual, course supp	Study assisted by manual, course support, bibliography and notes						
Additional documentation in the library/ on specialised electronic platforms and in the field							
Preparation of seminars/laboratories/ topics/reports, portfolios and essays							
Tutorship							
Examinations							
Other activities							
3.7 Total hours of individual study 102							
3.9 Total hours per semester 130							

4. Prerequisites (where appropriate)

3.10 Number of credits

4.1 curriculum	Notions of Organic Chemistry and Structural Biochemistry
4.2 competences	Notions of agrifood biochemistry

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5. Conditions (where appropriate)

5.1. related to course	Classroom 122	Faculty for Environmental Protection
5.2. related to	Laboratory 009	Faculty for Environmental Protection
seminar/laboratory/ project		

6. Spec	ific competences acquired
	C1 Analysis, interpretation, supervision and coordination of specific issues concerning the
	processing of food raw materials;
ces	C1.1 Description of the scientific foundations and acquired methods for the disciplines of chemistry
ten	(inorganic, analytical, organic and physical chemistry), biochemistry, instrumental analysis, in order to get a
odu	correct management of a technological process in the food industry
con	
al c	C2 Coordination of activities and processes based on technical specifications
ona	C2.1 Defining the food composition based on knowledge gained from agricultural raw materials (livestock
essi	and non-livestock) and complying with the principles of food preservation based on knowledge gained from
rofe	subjects such as: freezing, canned products, meat technology, dairy technology, bakery.
Pı	

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

7.1 General objective	Acquiring basic theoretical and practical knowledge about secondary
	metabolic products
7.2 Specific objectives	Secondary metabolic products use in the food industry in order to obtain
	safe food for consumption, with superior qualitative properties and with
	a longer term of validity.

8. Content*/

8.1 Course	Methods of teaching	No. of hours/
		Remarks
1. Secondary metabolic products. Definition. Classification.	ppt presentation.	2
Importance	disscutions	
2. Pigments	ppt presentation	2
	disscutions	
3.Volatile oils. Resins	ppt presentation.	2
	disscutions	
4.Phytohormones. Glycosides	ppt presentation.	2
	disscutions	
5.Phenolic acids and polyphenols	ppt presentation.	2
	disscutions	
6.Tannins and lignins.	ppt presentation.	2
	disscutions	
7.Alkaloids. Fitoncide. Allelopathy	ppt presentation.	2
	disscutions	
Deferrances	-	•

References

1.I.F.Dumitru - Biochimie - Editura Didactică și Pedagogică, București 1980.

2. Maior O. - Compuși naturali și de semisinteză. Curs. Institutul politehnic Bucuresti, 1984.

3.G.Neamţu - Biochimie vegetală- Ed.Ceres, Bucureşti, 1997

4.C.Purcărea – Biochimie agroalimentară. Edit.Univ. Oradea, 2005.
5. Scientific papers – internet

5. Scientific papers – internet		
8.3 Laboratory		
1.General laboratory safety rules and regulations for	signing the work safety	2
biochemistry laboratories.	training table	
2.Spectrophotometric determination of chlorophyll pigments	Aplication. experiments, ppt	2
3.Spectrophotometric determination of lycopene and	Aplication. experiments, ppt	2
betacaroten		
4.Determination of total polyphenol content - Folin-Ciocalteu	Aplication. experiments, ppt	2
method.		

5. Determination of total flavonoid content	Aplication. experiments, ppt	2
6. Determination of antioxidant capacity - FRAP method	Aplication. experiments, ppt	2
7.Determination of peroxidase activity by spectrophotometric	Aplication. experiments, ppt	2
method		
References		

1.Dana Iordăchescu, I.F.Dumitru-Biochimie practică – Tipografia Universități, București, 1980.

2.G.Neamtu - Lucrări Practice de biochimie vegetală Tipo Agronomia, Cluj-Napoca, 1997

3.Cornelia Purcărea - Biochimie alimentară practică, Ed.Univ.Oradea,2003.

4. Scientific paper – internet

* 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

It is a discipline of approch. The skills acquired will be required by employees working in food control laboratories, research laboratories, or those working in different production facilities - in order to obtain safe food for consumption and with superior sensory and commercial qualities.By learning the theoretical concepts and practical aspects included in discipline approach, students acquire knowledge that consistent, according to the skills required for possible occupations provided in Grid - RNCIS.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final			
			grade			
10.4 Course	The way responded by	Oral exam	80%			
	questions					
10.6 Laboratory	Project presentation	Summative Evaluation	20%			
10.8 Minimum standard of performance						
Minimum performance standards: minimum 5 oral exam questions: Note 5 minimum laboratory activities.						

Date of completion

Signature of course holder**

Signature of seminar laboratory/project holder **

Ass.prof.dr. Purcărea Cornelia

01.02..2019

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Date of approval in the department

Signature of the Head of Department Lecturer Dr ing.

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