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	**AGRICULTURE-HORTICULTURE**
1.4 Field of study	**AGRONOMY**
1.5 Cycle of study	**BACHELOR**
1.6 Study programme/Qualification	**AGRICULTURE / ENGINEER**

2. Information on the discipline

2.1 Name of discipline	**CROPS CULTIVATION III**						
2.2 Course holder	ALINA ȘTEFANIA STANCIU						
2.3 Seminar/Laboratory/Project holder	ALINA ȘTEFANIA STANCIU						
2.4 Year of study	IV	2.5 Semester	VII	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	4	out of which: 3.2 course	2	out of which 3.3 seminar/laboratory/project	2
3.4 Total hours in the curriculum	56	out of which: 3.5 course	28	out of which 3.6 seminar/laboratory/project	28
Time allotment					hours
Study assisted by manual, course support, bibliography and notes					60
Additional documentation in the library/ on specialised electronic platforms and in the field					60
Preparation of seminars/laboratories/ topics/reports, portfolios and essays					50
Tutorship					20
Examinations					14
Other activities.....					20
3.7 Total hours of individual study	**224**				
3.9 Total hours per semester	**56**				
3.10 Number of credits	5				

4. Prerequisites (where appropriate)

4.1 curriculum	Botany, Crops cultivation I, Crop cultivation II, Tillage, Soil and Plant nutrition,
4.2 competences	Knowledge of crop technologies of oil plants, textiles, hops, tobacco, roots, medicinal and aromatic plants

5. Conditions (where appropriate)

5.1. related to course	Lecture, video projector, laptop
5.2. related to seminar/laboratory/ project	Preparation of the report, knowledge of the notions contained in the laboratory work to be carried out (synthesis material); - Performing all laboratory work. Determination of technical plant species, systematic, morphological and biological features.

6. Specific competences acquired	
Professional competences	C 1. Elaboration of sustainable technological solutions for conventional agricultural production systems; the design of alternative production systems (organic farming) and new technologies for particular cases (land in slopes, sandy lands, land with temporary excess of humidity, etc.) C 1.2. Explaining the need to use different technological links, correlated with environmental factors and the requirements of cultivated plants; explaining and interpreting the interrelationships between the adopted agricultural production systems and the environment. C 1.3. Applying appropriate methods, techniques and procedures for customizing and optimizing sustainable agricultural production process technologies C 1.4. Qualitative and quantitative analysis of the effects of the technologies used (physico-chemical analyzes of the obtained productions, physical, chemical and biological analyzes on the environmental components that may be affected by applied agricultural technologies, the use of specific methods for assessing the impact on applied biodiversity technologies) C 2.3 Application of Community Agricultural Policy measures at the level of agricultural production and sustainable rural development, using the means and funds available under the specific regional conditions in Romania C 2.4 Analysis and evaluation of the effectiveness of the measures applied to increase agricultural production and rural development and their impact on the environment and quality of life
Transversal competences	CT1 Elaboration and observance of a work program and accomplishment of its own attributions with professionalism and rigor CT2 Apply effective communication techniques in team-specific activities; assume a role within the team and observe the principles of division of labor CT3 Objective self-evaluation of the need for continuous professional training in order to adapt and constantly meet the demands of economic development; the use of information and communication techniques and, at least, an international language of circulation

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

7.1 General objective	Training of students in the field of agriculture on the study of all plants cultivated from the large and medicinal - aromatic plants in Romania, cultivation technologies based on the latest achievements of science.

	Crops cultivation has an interdisciplinary applicative character, through the deep knowledge of the relationships between plants and the environment and the establishment of harmonization measures in order to obtain high and high quality productions.
7.2 Specific objectives	The contents of the presented laboratory works are based on the need to deepen the problems presented in the course. The students have the opportunity to study the morphological and biological particularities of the cultivated technical, medicinal and aromatic plants, as well as the systematic, chemical composition of the main product and the varieties cultivated in our country. Knowledge is useful in forming skills to address the specific problems faced by a specialist in "big culture."

8. Content*/

8.1 Course	Methods of teaching	No. of hours/Remarks
Oil plants. Sunflower. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Flax for oil. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Rape. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Richness, climate and soil requirements, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Mustard. Sesame. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Textile plants. Flax fiber. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2

Hemp. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Processing of flax strains in smelters.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Cotton. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Potato. Preparation of planting material. Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology Preparation of planting material	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Potato – Cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Radical plants - Sugar beet. Importance, climate and soil requirements, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2
Radical plants - Sugar beet. Cultural technology		
Chicory . Importance, requirements to climate and soil, fertilization, chemical composition of the main product, systematic and cultural technology.	Theoretical lectures related to the course subject. PowerPoint presentations Intercalated student contributions are requested on subject-specific subjects	2

Bibliography

1. Borcean I., Gh. David, A. Borcean, 2006, *Tehnici de cultura si protectie a plantelor tehnice*, Ed. de Vest ,Timisoara.
2. Borza Ioana, Alina Stanciu, 2010, *Fitotehnie*, Ed. Universitatii din Oradea.
3. Munteanu L.S. si colab.,2007, *Tratat de plante medicinale cultivate si spontane*, Ed. Risoprint Cluj- Napoca.
4. Tabara Valeriu , 2005, *Fitotehnie. Plante oleaginoase si textile*, vol.I, Ed. Brumar, Timisoara
5. Tabara Valeriu , 2005, *Fitotehnie. Plante tuberculifere si radacinoase*, vol.II, Ed. Brumar,

Timisoara		
8.2 Seminar	Methods of teaching	No. of hours/ Remarks
8.3 Laboratory		
1. Recognition of systematically cultivated oleaginous plants (sunflower), analysis of seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
2.The oil for the oil - systematic analysis of the seminal attributes and their morphological and biological particularities	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
3. Rape - systematic, analysis of seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
4. Richness - systematic, analysis of seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
5. Mustard. Susan - systematic, analysis of seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
5. Recognition of cultivated textile plants - fiber flax, systematic, analysis of seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
6.Hemp. Systematic study, analysis of seminal attributes and morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
7.Cotton. Systematic study, analysis of seminal attributes and morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
8. Systematic study, analysis of seminal attributes and morphological and biological peculiarities of potato.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
9. Systematic study, analysis of seminal attributes and morphological and biological peculiarities of potato	Lecture, practical applications, use of the determinant for the identification of the	2

	studied plant species	
10. Recognize cultivated root crops systematically, analyze seminal attributes and their morphological and biological particularities.	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
11.Chicory. Systematic study, analysis of seminal attributes and morphological and biological particularities	Lecture, practical applications, use of the determinant for the identification of the studied plant species	2
12. Deposition and quality control of seed material in oil and textile plants	Ground	2
13. Storage and quality control of tuberculous and root seed material	Ground	2
14. Visited at Carei Oil Factory.	Ground	2
8.4 Project		

Bibliography

1. Cernea S., Morar G., Duda M., 1995, *Lucrari practice de Fitotehnie* partea I, Tipo Agronomia, Cluj-Napoca
2. Dumitru M. Si col.,2002, *Cod de bune practici agricole*, Ed. Expert Bucuresti
3. Pop Georgeta, Simona Saveti, 1998, *Lucrari practice de fitotehnie*, Ed. Mirton, Timisoara

* The content, respectively the number of hours allocated to each course / seminar / laboratory / project will be presented 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

- The analysis and evaluation of the effectiveness of the measures applied for the increase of the agricultural production and the rural development and their impact on the environment and the quality of life presented in this course makes it acceptable to the epistemic communities, social partners, professional associations and employers in the field of Agriculture . The content of the discipline is found in the curriculum of Agriculture and other academic centers in Romania that have accredited this specialization, so that knowledge of basic notions is an important requirement for all employers in the field.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	For Note 5: All subjects must be treated to the	Written exam - duration 2 hours	60%

	minimum standards; For notes >5 all subjects should be treated to the highest standards		
10.5 Seminar			
10.6 Laboratory	During the last laboratory session the students will present the laboratory works, respectively the results obtained.	All laboratory work must be carried out, subject to examination. - Laboratory weight is 40% of the value of the exam note. - Recovering only an outstanding laboratory (in the last week of the semester)	40%
10.7 Project			
10.8 Minimum standard of performance			
Carrying out coordinated work to solve specific field problems with the correct assessment of the workload, the available resources, the time needed to complete and the risks, under the conditions of the application of the safety and health norms in the workplace			

Date of completion

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Signature of course holder**

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Signature of seminar laboratory/project holder **

Lect.Phd.eng.Stanciu Alina Ştefania

Date of approval in the department

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Signature of the Head of Department

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Dean signature

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** - Name, first name, academic degree and contact details (e-mail, web page, etc.) will be specified.

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University of Oradea	**PROCEDURE** **for the initiation, approval, monitoring and periodic evaluation of programmes of study**	**CODE:** **SEAQ** **PE – U. 01**	**4**				**4**	
			Approved in the Senate meeting from: --03.03.2014					