

SUBJECT OUTLINE

1. Information on the programme

1.1. Higher education institution	University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca
1.2. Faculty	Agriculture
1.3. Department	Plant Culture
1.4. Field of study	Agriculture
1.5. Cycle of study ¹	Bachelor
1.6. Specialization/ Study programme	Agriculture
1.7. Form of education	Full time

2. Information on the discipline

2.1. Discipline name	Vegetables growing 1							
2.2. Course coordinator	Lecturer Apahidean Al. Ioan PhD.							
2.3. Seminar/ laboratory/ project coordinator	Lecturer Apahidean Al. Ioan PhD							
2.4. Year of study	III	2.5. Semester	II	2.6. Evaluation type	continuous	2.7. Discipline status	Content ²	DS
							Compulsoriness ³	CD

3. Total estimated time (teaching hours per semester)

3.1. Hours per week – full time programme	4	out of which: 3.2. lecture	2	3.3. seminar/ laboratory/ project	2
3.4. Total number of hours in the curriculum	56	out of which: 3.5. lecture	28	3.6. seminar/laboratory	28
Distribution of the time allotted					hours
3.4.1. Study based on books, textbooks, bibliography and notes					22
3.4.2. Additional documentation in the library, electronic platforms and field experiences					15
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					15
3.4.4. Tutorials					4
3.4.5. Examinations					10
3.4.6. Other activities					
3.7. Total hours of individual study	64				
3.8. Total hours per semester	120				
3.9. Number of credits ⁴	4				

4. Prerequisites (if applicable)

4.1. curriculum-related	Pedology, Agrochemistry, Botany, Plant physiology, Agrotechnics
4.2. skills-related	The student must have general knowledge of agriculture

5. Conditions (if applicable)

5.1. for the course	The course is interactive, students may ask questions regarding the content of exposure. Academic discipline requires attention from the beginning to the end of the course and respect for its schedule. There are not allowed any other disturbing activities during the lecture, mobile phones will be shut down.
5.2. for the seminar/ laboratory/ project	Within practical work it is compulsory to consult the practical guide, each student will carry out an individual activity with the laboratory materials made available. Academic discipline is imposed during practical works.

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6. Cumulated specific competences

Professional competences	<p>To know the specific language for the discipline of Vegetable Growing</p> <p>To recognize the main species of vegetables grown</p> <p>To know the possibilities and the specific technology of culture in the field, greenhouses and polyethylene tunnels</p>
Transversal competences	<p>To demonstrate the ability to organize and operate a vegetable farm</p> <p>To be able to think about scientific activities related to vegetable culture</p> <p>To show concern about professional development</p> <p>To participate in research activities in the field of experience of the discipline</p>

7. Discipline objectives (based on the cumulated specific competences)

7.1. General objective	To acquire knowledge regarding the cultivation of vegetables at the level of current demands
7.2. Specific objectives	<p>To understand the distribution of vegetable production in our country and in Europe</p> <p>To be able to organize and operate a vegetable farm</p> <p>To know the factors that influence the quality and productivity of vegetable plants</p>

8. Content

8.1. COURSE Number of hours –28	Teaching methods	Observation
<p>Introduction to vegetables: The purpose and content of vegetables, the importance of vegetables; history, the current and prospective situation.</p>	Lecture	1 lecture
<p>The biological basis of vegetable culture: Origin and evolution, classification, particularities of development, propagation of vegetable plants</p>	Lecture	1 Lecture
<p>The basis of the intensification of vegetables: Zoning, concentrating, specializing and integrating production. Production units. The choice and rational use of the land-successive and associated crops.</p>	Lecture	2 Lecture
<p>Technical-material basis of vegetable crops - horticultural constructions (greenhouses, polyethylene tunnels, hotbed, low tunnels. System of machines and machinery)</p>	Lecture	1 Lecture
<p>Relationships of vegetable plants with vegetation factors and their management in protected areas - light, temperature, water, air, nutrition</p>	Lecture	2 Lecture
<p>General technology of vegetable culture - soil preparation, seed preparation and sowing, seedling production and planting, maintenance work.</p>	Lecture	5 Lecture
<p>Harvesting, conditioning and keeping vegetables fresh</p>	Lecture	2 Lecture
<p>8.2. PRACTICAL WORKS Number of hours – 28</p>		
<p>Knowledge of vegetable seeds Preparation of soil mixtures</p>	<p>Seeds study Making mixtures</p>	<p>1 lab work (2 hours/work) 1 lab work</p>

Preparation of land in protected areas	Carried cultures, land preparation	1 lab work
Varieties of vegetables from cabbage family	Study of varieties	1 lab work
Root vegetable varieties	Study of varieties	1 lab work
Varieties of bulbous vegetables	Study of varieties	1 lab work
Study of solano-fruit varieties	Study of varieties	1 lab work
Study of cucurbitaceous vegetable varieties	Study of varieties	1 lab work
Study of vegetable varieties for green beans and berries	Study of varieties	1 lab work
Horticultural constructions - constructive elements	Constructions study	1 lab work
Preparation of land in protected areas, crops establishment and maintenance works	Performing specific works	4 lab work
<i>Compulsory bibliography:</i>		
<i>Apahidean Al.S., Maria Apahidean, 2001, Legumicultură specială, Ed. Academicepres Cluj-Napoca</i>		
<i>Indrea D., Al.S. Apahidean, Maria Apahidean, D.Mamutu, Rodica Sima, 2013, Cultura legumelor, Ed. Ceres, Bucharest</i>		
<i>Optional bibliography:</i>		
<i>Apahidean Al. S., Apahidean Al.L., 2016, Legumicultura, Ed. Risyprint Cluj-Napoca</i>		
<i>Ciofu și col., 2004, Tratat de Legumicultură, Ed. Ceres, Bucuresti</i>		

9. Corroborating the discipline content with the expectations of the epistemic community representatives, of the professional associations and of the relevant employers in the corresponding field

In order to identify ways of modernizing and continuously improving the teaching and the content of the courses, with the most current topics and practical problems, the teachers participate in meetings with the farmers, being debated current issues and perspective of the production of vegetables in Romania and Europe.

10. Evaluation

Type of activity	10.1. Evaluation criteria	10.2. Evaluation type	10.3. Percentage of the final grade
10.4. Course	Knowledge of biological and ecological particularities of vegetable species Knowledge of general cultivation technologies in the field, greenhouses and polyethylene tunnels	2 tests during the semester	60%
10.5. Seminar/Laboratory	Knowledge of seeds, hybrids and varieties of vegetables Activity in progress	Practical and theoretical verification	20% 20%
10.6. Minimum performance standards			
Mastery of scientific information transmitted through lectures and practical papers at an acceptable level. Obtaining the pass mark at the final verification, are conditions of graduation.			

¹ Cycle of studies - choose one of the three options: Bachelor/Master/Ph.D.

² Discipline status (content) - for the Bachelor level, choose one of the options: FD (fundamental discipline), BD (basic discipline), CS (specific disciplines-clinical sciences), AP (specific disciplines-animal production), FH (specific disciplines-food hygiene), UO (disciplines based on the university's options).

³ Discipline status (compulsoriness) - choose one of the options - CD (compulsory discipline) OD (optional discipline) ED (facultative discipline).

⁴ One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Filled in on
03.09.2019

Course coordinator
Lecturer Apahidean Al. Ioan PhD.

Laboratory work/seminar coordinator
Lecturer Apahidean Al. Ioan PhD.

Approved by the
department on

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Head of the Department
Prof.dr. Marcel M. BUDA

