



No. _____ of _____

USAMV form 0101010110

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	II Plant culture
1.4. Field of study	Agronomy
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	Informatics and computer programming						
2.2. Course coordinator	Lecturer PhD. Rus Cristina Olimpia						
2.3. Seminar/ laboratory/ project coordinator	Lecturer PhD. Luisa Andronie						
2.4. Year of study	2.5. Semester	2.6. Evaluation type	continuous	2.7. Discipline status	Content ²	DC	
					Compulsoriness ³	DI	

3. Total estimated time (teaching hours per semester)

3.1. Hours per week - full time programme	3	out of which: 3.2. lecture	1	3.3. seminar/ laboratory/ project	2
3.4. Total number of hours in the curriculum	42	out of which: 3.5. lecture	14	3.6. seminar/laboratory	28
Distribution of the time allotted					hours
3.4.1. Study based on books, textbooks, bibliography and notes					25
3.4.2. Additional documentation in the library, electronic platforms and field experiences					25
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					20
3.4.4. Tutorials					4
3.4.5. Examinations					4
3.4.6. Other activities					
3.7. Total hours of individual study	78				
3.8. Total hours per semester	120				
3.9. Number of credits ⁴	4				

4. Prerequisites (if applicable)

4.1. curriculum-related	Mathematics - basic concepts	
4.2. skills-related	The student needs basic computer usage skills.	.

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/	Within practical works each student will develop an individual activity with laboratory materials (as described in the laboratory workbook). Academic discipline is imposed during

laboratory/ project	practical works.	
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6. Cumulated specific competences

Professional competences	Operation with concept notions, laws and principles specific to the field. Application of modeling and algorithms for the investigation of biological systems, for the processing and integration of specific data. Verifying the validity of the application of algorithms and data modeling.
Transversal competences	Responsible and efficient accomplishment of the tasks related to the professions in the field, respecting the principles of professional ethics.

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

7.1. General objective	To acquire the knowledge regarding basic techniques and advanced techniques in the use of spreadsheets, databases useful in managing the information used in the field in which they are prepared. Methods for solving the systems of conditional equations and inequalities as well as solving the resources allocation problems. Solve statistical problems using Data Analysis
7.2. Specific objectives	To understand the concepts acquired in the framework of table computing and database design. It can choose the method that is used according to the input data. One can interpret the results also by analogy to use the methods subsequently learned in other similar situations.

8. Content

8.1. COURSE Number of hours - 14	Teaching methods	Observation
Manipulation of formulas and notions regarding cell operations / references in spreadsheets Types of functions / conditioned functions Scenarios / Goal Seek / What-If / Search functions Pivot tables Construction of network type diagrams Solving systems of conditional equations and inequalities	Class will generally begin with questions. An overview of the new material will be given. The students will actively participate in the development of the new material. Then the students will be given problems similar to the homework.	1 lecture 1 lecture 1 lecture 1 lecture 1 lecture 2 lectures
8.2. PRACTICAL WORKS Number of hours - 28	Teaching methods	Observation
Identification of the level of knowledge by verifying previously acquired notions Manipulation of formulas and notions regarding cell operations / references in spreadsheets Types of functions / conditioned functions Scenarios / Goal Seek / What-If / Search functions Construction of network type diagrams Solving systems of conditional equations and inequalities	Theoretical presentation of practical work Class will generally begin with questions about homework. An overview of the material will be given. The students will actively participate in the development of this review. Then the students will be given problems similar to that have made on courses	1 practical work/week

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

The content of the discipline is consistent with what is done in other university centers in the country and abroad. To better adapt to the demands of the labor market of the content of the discipline, meetings were held with representatives of the business environment as well as with computer science teachers from pre-university education.

10. Evaluation

Type of activity	10.1. Evaluation criteria	10.2. Evaluation type	10.3. Percentage of the final grade
10.4. Course	1 theoretical subject	continuous(VP)	30%
10.5. Seminar/Laboratory	2 checks during the semester		70%

10.6. Minimum performance standards

Knowledge of the matter presented during the courses and practical works equivalent to the 5 mark. Obtaining passing mark at the intermediate test.

- 1 Cycle of studies - choose one of the three options: Bachelor/Master/Ph.D.
- 2 according to the educational plan
- 3 Discipline status (compulsoriness) - choose one of the options - DI (compulsory discipline) DO (optional discipline) DFac (facultative discipline).
- 4 One credit is equivalent to 25-30 hours of study (teaching activities and individual study).

Filled in on
04.09.2019

Course coordinator
Lecturer PhD. Rus Cristina Olimpia

Laboratory work/seminar coordinator
Lecturer PhD. Luisa Andronie



Approved by the
department on
05.09.2019

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


