UNIVERSITATEA DE ŞTIINŢE AGRICOLE ŞI MEDICINĂ VETERINARĂ CLUJ-NAPOCA
Calea Mănăştur 3-5, 400372, Cluj-Napoca
Tel: 0264-596.384, Fax: 0264-593.792
www.usamvcluj.ro

No._____of _____ **USAMV form CN-0701010214**

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	Food Science and Technologie
1.3. Department	Food science
1.4. Field of study	Food engineering
1.5.Education level	Bachelor
1.6.Specialization/ Study programme	Technology of agricultural products processing
1.7. Form of education	Full time

2. Information on the discipline

2.1. Name of the discipline	Applied computer science							
2.2. Course coordinator				Lecturer Ancuţa Rotaru				
2.3. Seminar/ laboratory/ project coordinator				Lecturer Ancuţa Rotaru				
2.4. Year of study	I	2.5. Semester	**I**	2.6. Type of evaluation	Summative	2.7. Discipline status	Content[2]	DF
							Compulsoriness [3]	DO

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 book, textbook, bibliography and notes					10
3.4.2. Additional documentation in the library, specialized electronic platforms and field					10
3.4.3. Preparing seminars/ laboratories/ projects, subjects, reports, portfolios and essays					8
3.4.4.Tutorials					6
3.4.5.Examinations					10
3.4.6. Other activities					
3.7. Total hours of individual study	44				
3.8. Total hours per semester	10				
3.9. Number of credits[4]	4				

4. Prerequisites (is applicable)

4.1. curriculum-related	
4.2. skills-related	The student must have knowledge of the basic use of the computer

5. Conditions (if applicable)

5.1. for the lecture	The course is interactive, students can ask questions regarding the content of lecture. Academic discipline requires compliance with the start and end of the course. We do not allow any other activities during the lecture, mobile phones will

	be turned off.
5.2. for the seminar/ laboratory/ project	During practical works, each student will develop an individual activity with laboratory materials (made available in the book that describes the laboratory work). Academic discipline is imposed throughout the course of practical works.

6. Specific competences acquired

Professional competences	C1. Identify, describe and use appropriately the specific notions of food science and food safety
Transversal competences	CT3: Efficient use of various ways and techniques of learning - training for the acquisition of bibliographic and electronic database information both in Romanian and in a language of international circulation, as well as assessing the need and usefulness of extrinsic and intrinsic motivations of education continue.

7. Course objectives (based on the list of competences acquired)

7.1. Overall course objective	To acquire the knowledge regarding the basic techniques and the advanced techniques in the use of spreadsheets as well as databases. To acquire skills in solving systems of equations and conditioned inequalities, in solving problems of resource allocation, as well as in CAD design.
7.2. Specific objectives	To understand the notions acquired in the spreadsheet. To be able to choose the method to be used depending on the input data. To be able to interpret the results and by analogy to use the methods learned later in other similar situations

8. Content

8.1.LECTURE **Number of hours – 14**	Teaching methods	Notes
SPREADSHEETS - Getting Started, File Size, Cursor Movement, Predefined Number of Decimals, Renaming Spreadsheets, Copying or Moving Spreadsheets, Inserting Cells, Deleting Cells, Paste Cells, Formatting Cells, Using Comments **DATA HANDLING** - Copying, Inserting and moving, Creating custom lists	Lecture - Exemplification	1 lecture = 2 hours
DATABASES - Data sorting, Data filtering, Data validation, Dividing a column into several columns, Deleting multiple numeric values within a column	Lecture – Exemplification	2 lectures
EDITING FORMULAS - Formula models using arithmetic operators, Cell references, Types of formula errors, Using functions **ANALYSIS INSTRUMENTS** **SOLVER** - Types of problems solved with solver	Lecture - Exemplification	1 lecture
GRAPHIC REPRESENTATIONS - Options for aesthetic (design) modification of a graphic, Graphical	Lecture - Exemplification	1 lecture

representations in tables **PIVOT TABLES** - Filtering data in a pivot table, Pivotchart, Tables **CAD DESIGN** - Getting started **CAD DESIGN WITH DRAFTSIGHT** - Draftsight software installation, Application interface presentation, Graphic area customization, Units of measure, Drawing area size, Coordinate system, Using coordinates, File operations **DRAWING AND DIMENSION TOOLS** - Points, Lines, Marking and dimensioning of points, Determination of segment length using dimensions, Polygons, Rectangle, Polylines, Circle, Circle, Ellipse and ellipse arc, Spline curves, Rings **CALCULATION OF AREA AND PERIMETER** - Determination of point coordinates, Dividing a segment / arc into equal segments / arcs **GLUEING INSTRUMENTS,** **HAT AND COLOR FILLING,** **TEXT EDITING - Tables,** **TOOLS FOR MODIFICATION**	Lecture - Exemplification Lecture - Discussions Lecture - Discussions Lecture - Exemplification Lecture - Exemplification Lecture - Exemplification Lecture - Exemplification	1 lecture 1 lecture 1 lecture 1 lecture 2 lectures 1 lecture 2 lectures

8.2. PRACTICAL WORK **Number of hours – 28** **SPREADSHEETS** - Getting Started, File Size, Cursor Movement, Predefined Number of Decimals, Renaming Spreadsheets, Copying or Moving Spreadsheets, Inserting Cells, Deleting Cells, Paste Cells, Formatting Cells, Using Comments **DATA HANDLING** - Copying, Inserting and moving, Creating custom lists **DATABASES** - Data sorting, Data filtering, Data validation, Dividing a column into several columns, Deleting multiple numeric values within a column **EDITING FORMULAS** - Formula models using arithmetic operators, Cell references, Types of formula errors, Using functions **ANALYSIS INSTRUMENTS** **SOLVER** - Types of problems solved with solver **GRAPHIC REPRESENTATIONS** - Options for aesthetic (design) modification of a graphic, Graphical representations in tables **PIVOT TABLES** - Filtering data in a pivot table, Pivotchart, Tables	Theoretical presentation of practical works Individual study Individual study Individual study Individual study Individual study Test Individual study	1 lab work (2 hours / work) 1 lab work 2 lab work 1 lab work 1 lab work 1 lab work 1 lab work

CAD DESIGN - Getting started **CAD DESIGN WITH DRAFTSIGHT** - Draftsight software installation, Application interface presentation, Graphic area customization, Units of measure, Drawing area size, Coordinate system, Using coordinates, File operations	Individual study	1 lab work
DRAWING AND DIMENSION TOOLS - Points, Lines, Marking and dimensioning of points, Determination of segment length using dimensions, Polygons, Rectangle, Polylines, Circle, Circle, Ellipse and ellipse arc, Spline curves, Rings	Individual study	1 lab work
CALCULATION OF AREA AND PERIMETER - Determination of point coordinates, Dividing a segment / arc into equal segments / arcs **GLUEING INSTRUMENTS,** **HAT AND COLOR FILLING,** **TEXT EDITING - Tables,** **TOOLS FOR MODIFICATION**	Individual study	2 lab work
	Individual study	1 lab work
	Individual study	2 lab work

Compulsory bibliography:

Pop Ioana, Ancuta Rotaru – Informatica aplicata si grafica asistata de calculator-Indrumator lucrari practice,, 2016.
Pop Ioana – Elemente de informatică forestieră, 2014, Editura AcademicPres, Cluj-Napoca, ISBN 978-973744-351-9

Optional bibliography:

Pop Ioana – Informatică aplicată- îndrumător lucrări practice, 2014, Editura Risoprint, Cluj-Napoca
ISBN 978-973-53-1377-7

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

The content of the discipline of Computer Science and Computer use is in line with what is done in other university centers in the country and abroad.
In order to better adapt the content of the discipline to the labor market, meetings with representatives of the economic environment and with computer science teachers from the pre-university education took place.

10. Assessment

Type of activity	10.1. Assessment criteria	10.2. Assessment methods	10.3. Percentage of the final grade
10.4. Lecture	Knowing the types of problems presented at the course and exemplified in the laboratory	Oral exam	30%
10.5. Seminar/Laboratory	2 checks during the semester	Ongoing verification	70%
10.6. Minimum performance standards			
Mastery of scientific information transmitted through lectures and practical papers at an acceptable level. Obtaining the passing grade for the ongoing checks is a condition of passability.			

[1] Level of study- to be chosen one of the following - Bachelor/Post graduate/Doctoral
[2] Course regime (content) – for bachelor level it will be chosen one of the following - **DF** (fundamental subject), **DD** (subject in the domain), **DS** (specific subject), **DC** (complementary subject).

[3] Course regime (compulsory level) - to be chosen one of the following - **DI** (compulsory subject), **DO** (optional subject), **DFac** (facultative subject)

[4] One ECTS is equivalent with 25-30 de hours of study (didactical and individual study).

Filled in on
06.09.2021

Course coordinator
Lecturer
ROTARU ANCUTA

Laboratory work/seminar coordinator
Lecturer
ROTARU ANCUTA

Subject coordinator
Lecturer
ROTARU ANCUTA

Approved by the Department on
22.09.2021

Head of the Department
Prof. SUHAROSCHI RAMONA

Approved by the Faculty Council on

28.09.2021

Dean
Prof. MUDURA ELENA