



UNIVERSITATEA DE ȘTIINȚE AGRICOLE ȘI MEDICINĂ VETERINARĂ CLUJ-NAPOCA

Calea Mănăstur 3-5, 400372, Cluj-Napoca

Tel: 0264-596.384, Fax: 0264-593.792

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No. _____ of _____

USAMV form CN-0702010214

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	Food control and expertise
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 Ancuța Rotaru				
2.3. Seminar/ laboratory/ project coordinator				Lecturer Ancuța Rotaru				
2.4. Year of study	I	2.5. Semester	I	2.6. Type of evaluation	Summative	2.7. Discipline status	Content ²	FD
							Compulsoriness ₃	ID

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
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will

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

P r o f e s s i o n a l c o m p e t e n c e s	C1 . Identify, describe and use appropriately the specific notions of food science and food safety
T r a n s v e r s a l c o m p e t e n c e s	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)



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7.1	needed 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	Teaching methods	Notes
Number of hours – 14 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 representations in tables	Lecture - Exemplification	1 lecture
PIVOT TABLES - Filtering data in a pivot table, Pivotchart, Tables	Lecture - Exemplification	1 lecture
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	Lecture - Discussions	1 lecture
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	Lecture - Discussions	1 lecture
	Lecture - Exemplification	1 lecture
	Lecture - Exemplification	2 lectures



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<p>CA Determination of point coordinates, Dividing a segment / arc into equal segments / arcs</p>	<p>Lecture - Exemplification</p>	<p>1 lecture</p>
<p>GLUEING INSTRUMENTS, HAT AND COLOR FILLING, TEXT EDITING - Tables, TOOLS FOR MODIFICATION</p>	<p>Lecture - Exemplification</p>	<p>2 lectures</p>

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

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,**

<p>Theoretical presentation of practical works Individual study</p>	<p>1 lab work (2 hours / work) 1 lab work</p>
<p>Individual study</p>	<p>2 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study Test</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>
<p>Individual study</p>	<p>2 lab work</p>
<p>Individual study</p>	<p>2 lab work</p>
<p>Individual study</p>	<p>1 lab work</p>



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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 Education levels- choose of the three options: Bachelor/* Master/Ph.D.

² Discipline status (content)- for the undergraduate 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** (elective discipline).

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

^{5/*} Disciplines: AK- Advanced knowledge, CT- Complementary Training, S- Synthesis

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

Head of the Department



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Approved by the Faculty
Council on

28.09.2021

Dean
Prof. MUDURA ELENA