

# SYLLABUS

Approved,  
DEAN  
Prof.univ.dr.ing. Gilbert-Rainer Gillich

## 1. Program Data

1.1. Institution of Higher Education	Babeş-Bolyai University
1.2. Faculty	Faculty of Engineering
1.3. Department	Department of Engineering Science
1.4. Field of Study	Electrical Engineering
1.5. Course of Study	Bachelor
1.6. Study Programme	Electromechanics

## 2. Discipline Data

2.1. Discipline Name	Applied Informatics						
2.2. Course Coordinator	Lect.univ.dr. Andrea Amalia Minda						
2.3.1. Seminar Coordinator							
2.3.2. Laboratory Coordinator	Ș.I.dr.ing. Olga Amariei						
2.3.3. Project Coordinator							
2.4. Year of Study	I	2.5. Semester	I	2.6. Evaluation Time	C	2.7. Discipline Regime	Cmp.

## 3. Estimated Total Time (hours per semester of teaching activities)

3.1. Number of Hours per Week	4	from which: 3.2. Course	2	3.3. seminar	2
3.4. Total Hours from the Curriculum Plan	56	from which: 3.5. Course	28	3.6. laboratory & project	28
Time Fund Distribution - hours					
Study of Handbook, Course Materials, Bibliography & Notes					20
Additional Documentation in Library, on Special E-learning Platforms & in the Field					7
Preparation of seminars/laboratories/ projects, topics, reports, portfolios & essays					15
Mentoring					
Examination					2
Other Activities .....					
3.7. Total Time of Individual Study	44				
3.8. Total Hours per Semester	100				
3.9. Number of Credits	4				

## 4. Pre-condition (where is the case)

4.1. of Curriculum	Mathematics, Information Technology
4.2. of Competences	Digital IT

## 5. Condition (where is the case)

5.1. of Course Progress	Video projector, PC
5.2.1. of Seminar Progress	•
5.2.2. of Laboratory Progress	Individual PC workstations for each student, Microsoft Office package license: Word, Excel, Power Point
5.2.3. of Project Progress	•

## 6. Acquired Specific Competences

Professional Competences	Application and adequacy of basic knowledge of mathematics, physics, chemistry specific in the field of electrical engineering (CP1)  Operating with basic concepts in the field of computer technology and information technology. (CP2)
Transversal Competences	Identifying the objectives to be achieved, the available resources, the conditions for their completion, the work stages, the related deadlines and the related risks. (CT1)

**7. Discipline Objectives** (coming out from the Checklist of Acquired Specific Competences)

7.1. General Objective of Discipline	Acquiring the necessary skills and knowledge to use the computer for editing documents, graphing experimental data, spreadsheets and presenting results.
7.2. Specific Objectives	Learning the basic principles of word and graphics processors Effective use of the main text-typing tools Microsoft Word, Excel spreadsheet calculations, Power Point scientific presentations

**8. Content**

8.1. Course	Teaching methods	Observation
1. Introduction to Applied Informatics. Informatics and the Information Society. WINDOWS operating system	exposition, problematization, heuristic conversation, explanation	2 hours
2. Microsoft Office - applicability, usability, installation, configuration		2 hours
3. Microsoft Word text editor		2 hours
4. Creating Word documents. Page settings, operations and formatting applied to a text.		2 hours
5. Formatting text and paragraphs. Inserting and processing data, tables, graphs, images.		2 hours
6. Equation editor. Using Drawing tools in Microsoft Word		2 hours
7. Elementary operations and basic concepts of Microsoft Excel application		2 hours
8. Managing and formatting spreadsheets		2 hours
9. Sorting and filtering data		2 hours
10. Basic functions in Excel		2 hours
11. Techniques and procedures for inserting and formatting Excel charts, icons and graphs.		2 hours
12. Methods of designing a PowerPoint presentation.		2 hours
13. Ways of processing a presentation. Creating templates, inserting, formatting, editing information in PowerPoint.		2 hours
14. TeamViewer		2 hours
Bibliography		
1. Nedelcu Dorian – Microsoft Excel. Concepte teoretice si aplicatii, Editura Eftimie Murgu, Resita, 2005		
2. Elvira Nicoleta Bîzdoagă și alții, Inițiere în Word,Editura Arves, 2003		
3. Tom Brunzel, Învăță singur Microsoft PowerPoint,Editura Niculescu, 2007		
4. Sorin Matei, Mirela Panait, Inițiere în utilizarea calculatoarelor, Editura Arves, 2004		
5. Mocean L., Popa S.C., Informatică economică.Teorie și aplicații, Editura Risoprint, Cluj-Napoca, 2020.		
8.2.2. Laboratory	Teaching methods	Observation
1. WINDOWS	problem solving and discovery, Group work, worksheets in Word, Excel, Power Point linking theoretical knowledge to practical applications	2 hours
2. Creating a Microsoft Word document. Page setting (margins, page number)		2 hours
3. Formatting text. Typing methods		2 hours
4. Designing a Europass CV in Microsoft Word. Writing a cover letter. Writing a job recommendation		2 hours
5. Writing the automatic table of contents of a book/magazine. Working with tables		2 hours
6. Working with the equation editor in Word. Using Drawing tools in Microsoft Word		2 hours
7. Introduction to Microsoft Excel. Registers and spreadsheets		2 hours
8. Sorting and filtering data. Applications		2 hours
9. Basic functions in Excel		2 hours
10. Chart management. Data analysis		2 hours
11. Engineering applications in Excel		2 hours
12. Making a presentation in PowerPoint.		2 hours
13. Power Point presentation of projects		2 hours
14. TeamViewer-software application for remote control, online meetings, web conferencing and file transfer between computers.		2 hours
Bibliography		
1. A.A. Minda, Note de curs		
2. Manafu G., Giju A., Calinoiu A. - Microsoft Office EXCEL - Teste si aplicații, Ed. Aquila, București, 2003		
3. Nedelcu Dorian – Microsoft Excel. Concepte teoretice si aplicatii, Editura Eftimie Murgu, Resita, 2005		
4. Pătruț B., Pătruț M.- Aplicații PowerPoint educationale, Ed. EduSoft, București, 2005.		
5. Mocean L., Popa S.C., Informatică economică.Teorie și aplicații, Editura Risoprint, Cluj-Napoca, 2020.		
8.2.3. Project	Teaching methods	Observation

**9. Corroborating Discipline's Contents with the Expectation of the Epistemic Community Representatives, the Professional Associations and the Employers' Representatives from the Programme Corresponding Field**

- They have been established with the main employers by previous discussions at the study programme substantiation.

**10. Evaluation**

Type of activity	10.1. Evaluation criteria	10.2. Evaluation methods	10.3. Weight from the final grade
10.4. Course	Debates participation	Continuous evaluation according to number of interventions and quality of response	10%
	Acquired knowledge level	Exam (on paper)	60 %
10.5.1. Seminar	Activity / implication		
	Gained competence level		
10.5.2. Laboratory	Activity / implication	Continuous evaluation according to number of interventions and quality of response	30%
	Gained competence level in practice	Continuous evaluation Summative evaluation	
10.5.3. Project	Readiness in phrasing the project stages		
	Project quality		
10.6. Performance Minimum Standard			
• Completion of Applicative Laboratory Activities			

Completion Date

1.05.22

Course Coordinator's Signature

Lect.univ.dr. Andrea Amalia  
Minda

Laboratory Coordinator's Signature

Ş.l.dr.ing. Olga Amariei

Department Endorsement Date

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Chief of Department Signature

Ş.l.dr.fiz. Cornel Hațiegan