POLYTECHNIC OF MEĐIMURJE IN ČAKOVEC

COURSE SYLLABUS

ACADEMIC YEAR: 2020/2021

1. GENERAL COURSE INFORMATION

1.1 Course name	Basics of computing			
1.2 Study program/s	Undergraduate professional study Sustainable Development			
1.3 Course status (O,E)	O	**1.6 Mode of instruction (number of hours)**	**Lectures**	30
1.4 Course code			**Exercises**	30
1.5 Course abbreviation	OR		**Seminars**	-
1.6 Semester	1		**E-learning**	Merlin
1.7 ECTS	5	**1.7 Place and time of instruction**	The premises of the Polytechnic of Međimurje in Čakovec, according to the schedule published on the website	

2. TEACHING STAFF

2.1 Course leader/s-title	Nenad Breslauer, v.pred.	**contact**	Nbreslauer1@mev.hr
		contact	
2.2 Assistant/s- title		**contact**	
		contact	
2.3 Instruction held by-title		**contact**	

3. COURSE DESCRIPTION

3.1 Course goals	After the course, the student will acquire knowledge within the scope of the computer in the organization and information of the office in the field of the business of ecoengineering,engineering and engineering of construction, using modern computer technology.gija. Knowledge is acquired from the field of application of computers in office business, production of complex documents, application of the Internet in operation, organization of work, standards and standards in business. It has a sufficiently broad knowledge that allows for the rapid application of new technologies but also its application in other subjects of the study.
3.2 Prerequisites	There are no prerequisites. The Computer Science Course Programme serves to support further work in the profession.
3.3 Course outcomes	After a successfully mastered course, students will be able to: I1 - Describe the basic concepts in the field of informatics. I2 - Recognize the characteristics of embedded components and peripherals. I3 - Create complex documents, using advanced text editing program commands and Internet capabilities to solve problems I4 - Combine different possibilities of spreadsheet and presentation program in order to solve project tasks I5 - Propose the most efficient CAD software solution in business.
3.4 Course content	The course includes content related to historical computer development, computer mode, computer build, Operating Systems, and MS Office tools.

3.5 Types of coursework	X	Lectures	X	Exercises		Blended e-learning	X	Individual activities		Laboratory

	x	Seminars and workshops		Distant learning		Field classes		Multimedia and network		Mentorship
		Other								

3.6 Language of instruction	Croatian

3.7 Monitoring students' work (enter the number of ECTS credits for each activity so that the total number of ECTS credits is equal to the total ECTS value of the course, 1 ECTS = 30 hours)						
	2	Class attendance		Seminars		Essay
		Class activity		Project		Report/paper
	1	Midterm exams	2	Practical task		Continuous knowledge check
		Written exam		Experimental work		
		Oral exam		Research		

3.8 Assessment and evaluation of students' work during classes and at the final exam

Activity Specification	Percentage %	Score
Evaluation during class		
Presence in class	2,5%	2,5
Activity in Class	2,5%	2,5
Seminar work/ project/ essay	10%	10
Colloquium 1	43%	42
Colloquium 2	42%	43
Evaluation of exam work for students who did not co-late		
Written exam	*60%*	*60*
Total:	**100%**	**100**

3.9 Assessment criteria – analysis per learning outcomes

Ways of evaluating learning outcomes						
	Attendance	**Activity**	**Mid-term exam 1**	**Mid-term exam 2**	**Practical work**	**Total**
Outcome 1			10			10
Outcome 2			10	15		25
Outcome 3			22			22
Outcome 4				23		23
Outcome 5				5	10	15
Outcome not-related	2,5	2,5				5
Total	**2,5**	**2,5**	**42**	**43**	**10**	**100**

Grading of outcomes (in order to pass the mid-term exam/exam the student must achieve at least 50% points for each learning outcome)

Points	Grade
89 – 100	excellent (5)
76 – 88	very good (4)
63 – 75	good (3)
50 – 62	pass (2)
0 – 49	fail (1)

3.10 Specific features related with taking the course

If the student collects 50% of the points of each outcome directly access orally exam. If a student does not achieve a sufficient number of points on the midterm exam, he cannot take the next midterm exam.

Once won points in intermediate exams for each learning outcome are no longer deleted unless the student decides to correct the result for each learning outcome, whereby the points won until then are deleted and newly achieved points for that learning outcome are entered. A student cannot access the

	exam period if he / she has not submitted and presented seminar paper. The final grade is obtained on the oral part of the exam. Full-time students are required to attend at least 70% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. Part-time students are required to attend at least 30% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. If the student has not fulfilled all the obligations set by the course, he is obliged to attend the lectures again and meet the conditions for taking the exam. Attendance can be offset by online tuition, organised webinars and added assignments given by teachers. One lesson lasts 45 minutes, and several hours form a teaching unit. Absence from one teaching unit is counted as one absence. Delays and apologies are recorded separately. In that case, if the student missed more than 50% of classes, and has a justifiable reason/apology, the request should be submitted to the Department Council, which then decides on the justification of student absences with the obligatory opinion of the course leader.	
3.11 Students obligations	Full-time students are required to attend at least 70% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. Part-time students are required to attend at least 30% of the total number of hours of lectures and exercises in order to exercise the right to take the exam. If the student has not fulfilled all the obligations set by the course, he is obliged to attend the lectures again and meet the conditions for taking the exam. Attendance can be offset by online consultations, organized webinars, and added assignments given by teachers. One lesson lasts 45 minutes, and several hours form a teaching unit. Absence from one teaching unit is counted as one absence. Delays and apologies are recorded separately. In the event that a student is absent from more than 50% of classes, and has a justifiable reason / apology, a request should be submitted to the Department Council, which then decides on the justification of student absences with the obligatory opinion of the course leader.	
3.12 Written assignments	Seminar papers must be computer written and may have a maximum of 12 text cards (Times New Roman, font 12) from introduction to conclusion, together with pictures, table appendices, etc. Seminar papers must have an adequate title page, content, marked pages and literature. The seminar paper should be divided into chapters and contain a list of references and a list of figures and tables and graphs and finally a summary / conclusion in the size of 250 words. The student guarantees the authenticity of the work with his signature.	
3.13 Required reading	1.	Ž. Panian, I. Strugar, Application of computers in business practice, 2. Synergy,Zagreb, 2004.
	2.	Grundler, Gvozdanović, Ikica,Kos, Lipljin, Milijaš, Srnec, Zvonarek:ECDL 5.0 – Basic program, PRO-MIL, Varaždin, 2010
	3.	Nenad Breslauer: Computer Training Script Application in Business Practice
3.14 Additional reading	1.	Materials on the e-learning system (moodle.srce.hr)
	2.	
	3.	
4 ADDITIONAL COURSE INFORMATION		
4.1 Quality control	The quality of the program, teaching process, teaching skills and level of mastery of the material will be established by conducting a written evaluation based on questionnaires, and in other standardised ways and in accordance with the by-laws of the Polytechnic of Međimurje in Čakovec.	
4.2 Contact the teacher	Students can contact the teacher during the office hours and during classes, while for short questions and explanations they can contact him/her any day	

	during working hours by coming in person or by landline. It is also possible to ask questions by e-mail, which will be answered in 48 hours at the latest. It is desirable for students to come as often as possible for any possible questions during the teacher's office hours.
4.3 Information about the course	It is the obligation of each student to be regularly informed about the course. All notifications about the classes or possible postponement of classes will be posted on the bulletin board and on the website of the Polytechnic at least 24 hours in advance.
4.4 Course contribution to the study program	Interpret information, ideas, problems and solutions to professional and general audiences; Use new technologies and techniques as part of the lifelong learning process; Advocate an ethical approach to work and to associates in project teams

5. ANALYSIS OF COURSE TOPICS (the number of hours is equal to the number of lectures and exercises of the course)

LECTURES

Hours	Topic and description	Method	Learning outcomes	Course outcome
1.	Introduction to the content of the course	Presentation, pp presentation,	Get to know students about the program, themes, and how to work	I1
2.	A brief history and trends in the development of information technologies.	Presentation, pp presentation, quiz	Present historical development of computers	I1
3. **4.**	Number systems and data encoding.	Presentation, pp presentation, quiz	Perform operations in different number systems	I1
5. **6.**	Data encoding in computer systems	Presentation, pp presentation, quiz	Explain how data is used in your computer	I1
7. **8.**	System Software	Presentation, pp presentation	Explain what the relationship between software and hardware is and distinguish between different types of software	I1
9. **10.**	Electronic computer build and mode	Presentation, pp presentation, quiz	Explain what individual parts of the computer are for and how parts merge into a computer system	I1
11. **12.**	Computer memory	Presentation, pp presentation	Assess the impact of memory on the operation of the entire computer system	I2

13. 14.	Organisation and management of data	Presentation, pp presentation	Distinguish between different ways to store data	I1
15. 16.	Colloquium			
17. 18.	Computer system model: processor, input - output subsystem of the computer	Presentation, pp presentation	Explain Von Neumanno's computer system model. The central unit of the computer. Input Output Subsystem	I2
19. 20.	Input and output devices	Presentation, pp presentation	Distinguish between input/output devices	I2
21. 22.	Computer networks and the Internet	Presentation, pp presentation	Explain basic concepts and procedures related to the network and the functioning of the internet	I1
23. 24.	Internet and electronic business	Presentation, pp presentation	Explain the types of events and their propagation	I1
25. 26.	Getting to know CAD systems	Presentation, pp presentation	Identify the CAD software solution in business and choose the most efficient	I5
27. 28.	Selected topics of importance in informatics	Presentation, pp presentation	Identify and define terms as personal computing, nettiquette,blogs, aggregation,the term"internet of things"	I5
29. 30.	Colloquium			
EXERCISES/ SEMINARS				
Hours	**Topic and description**	**Method**	**Learning outcomes**	**Course outcome**
1.	Learn about the program, themes, and how to work	Guided task, examples, and self-creating tasks	Basic concepts related to INFORMATICS and a brief analysis of students' pre-knowledge and experiences	I1
2.	MS Windows 10 operating system, file system	Guided task, examples, and self-creating tasks	Use The Computer Environment	I1

3.	Manage files	Guided task, examples, and self-creating tasks	Apply the file system to a convenient example of work.	I1
4.	Manage files	Guided task, examples, and self-creating tasks	Apply the file system to a practical example of work	I1
5.	Advanced Internet Search	Guided task, examples, and self-creating tasks	Explain how search engines and directories work on the Internet	I1
6.	Using an email system	Guided task, examples, and self-creating tasks	Use the system to send and receive emails	I1
7.	Text processing and formatting	Guided task, examples, and self-creating tasks	Create and format text	I2
8.	Mail Merge	Guided task, examples, and self-creating tasks	Create a mail merge	I2
9.	Styles, numbering, sections, and columns in a document	Guided task, examples, and self-creating tasks	Apply styles, numbering, sections, and columns	I2
10.	Page numbering, table of contents	Guided task, examples, and self-creating tasks	Create page numbering and table of contents	I2
11.	Working with tables	Guided task, examples, and self-creating tasks	Create Tables	I3
12.	Macros, create, and fill a form	Guided task, examples, and self-creating tasks	Create a macro and form	I3
13.	Colloquium 1	Independently	Verification of outcomes I4	I3
14.				
15.	Spreadsheets, input and data type, formulas, operators, cell addresses, comments, worksheets	Guided task, examples, and self-creating tasks	Create and format a spreadsheet	I4
16.	Format table, count, if, lookup, date and more, graphics,	Guided task, examples, and self-creating tasks	Apply functions	I4
17.	Work with data, group, filter, sort, pivot tables	Guided task, examples, and self-creating tasks	Apply grouping, filtering, sorting, and pivoted tables	I4
18.	Conditional formatting, solution search, data tables with one and two variables	Guided task, examples, and stand-alonetask	Apply conditional formatting, solution search, data tables with one and two variables	I4
19.	Scenarios, macro command, and document protection	Guided task, examples, and self-creating tasks	Apply scenarios, macro command, and document protection	I4
20.	Task	Guided task, examples, and self-creating tasks	Solve a set task on your own	I4

21.	Presentations, theme selection, element input	Guided task, examples, and self-creating tasks	Create a presentation	I4
22.	Create a Master Slide	Guided task, examples, and self-creating tasks	Create a Master Slide	I4
23.	Presentation effects	Guided task, examples, and self-creating tasks	Apply presentation effects	I4
24.	Preparing output results	Guided task, examples, and self-creating tasks	Create output results	I4
25.	Autocad	Guided task, examples, and self-creating tasks	Preparing the working environment	I5
26.	Commands for editing drawings	Guided task, examples, and self-creating tasks	Apply commands to edit drawings,	I5
27.	Commands for manipulating drawings	Guided task, examples, and self-creating tasks	Apply commands to manipulate drawings	I5
28.	Straight and round-copy commands	Guided task, examples, and self-creating tasks	Apply commands for rectilinear and circular copying	I5
29. **30.**	Colloquium 2	Independently	Verification of outcomes I4	I4