VELEUČILIŠTE U KARLOVCU
Karlovac University of Applied Sciences

SYLLABUS PREDMETA

General information

Course title:	**FUNDAMENTALS OF INFORMATICS WITH APPLICATION OF THE COMPUTERS**
ISVU[1] course code:	38907 / MT103
Studies in which the course is taught:	STUDY OF MECHATRONICS
Course Instructor:	Ph.D Adam Stančić, senior lecturer
Course Assistant:	- - -
ECTS credits:	4.0
Semester of the course execution:	I. (winter sem.)
Academic year:	2022 / 2023
Exam prerequisites:	- - -
Lectures are given in a foreign language:	English
Aims:	Introducing students to the basic concepts in the field of information sciences, personal computer architecture and computer software. Through the acquired knowledge and conducted exercises, the student should be able to work with office applications on a stand-alone computer, in a network or corporate environment and the Internet.

Course

Course structure	Number of contact hours per week:	Number of contact hours per semester:	Student's requirements by type of teaching:
Lectures:	2	30	attendence 80%
Tutorials:	2	30	attendence 80%
Practical (lab) sessions:			
Seminars:			
Field work:			
Other:			
TOTAL:	4	60	

Monitoring of students' work, knowledge evaluation and learning outcomes

	LEARNING OUTCOMES (upon completion of the course the student should be able to:)	**FACTORS AFFECTING THE GRADE** (e.g. term paper, practical work, presentation, ...)	**MAXIMUM NUMBER OF POINTS PER FACTOR**
Formation of the grade during the implementation of teaching: (Define from minimum 5 to maximum 10 learning outcomes)	**O 1**: Define basic concepts in the field of informatics	Colloquium I	Colloquium I 40 points Colloquium II 40 points Seminar 20 points
	O 2: Recognize the characteristics of embedded components and peripherals	Colloquium I	
	O 3: Apply the functionality of the computer operating system and office applications	Colloquium I	
	O 4: Use the computer in a network environment and on the Internet	Colloquium II	
	O 5: Manage resource sharing, data protection and archiving	Colloquium II	
	O 6: Evaluate virtualization processes and the Cloud business model in the work environment	Colloquium II	
	I 7: - - -		

[1] ISVU – Information System of Higher Education Institutions in Croatia

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	I 8: - - -		
	I 9: - - -		
	I 10: - - -		
Alternative formation of the grade (I 1 – I 10)	**or alternative formation of the grade: I 1 – I 10**		TOTAL: 100 points
Students' competencies	Students will acquire the general and professional competencies needed to work independently on a personal computer. They will understand what the components of a computer are, what an operating system is, and what software is. They will use the functions of the operating system to work with data independently and will use the basic package of office applications (word processing, spread-sheets, presentations, e-mail and the Internet). They will be familiar with data protection and privacy procedures when working with a computer in a network environment. They will understand the purpose and benefits of using virtualization and the Cloud business model.		

Prerequisites for course approval (lecturer's signature):	Attendance at classes and laboratory exercises min. 80%
Prerequisites for taking exams:	Signature + term paper + passed exercises (office applications + Internet) min. 75%
Grading scale:	(According to the Regulations on student assessment of Karlovac University of Applied Sciences, Article 9, Paragraph 5) 90-100 - excellent (5) (A) 80 to 89.9 - very good (4) (B) 65 to 79.9 - good (3) (C) 60 to 64.9 - sufficient (2) (D) 50 to 59.9 - sufficient (2) (E) 0 to 49.9 – fail (1) (F) Students are graded during class, what forms 70% of final exam. Students who achieve 50% (35 points) and more are allowed to take the final exam. The score on final exam makes 30% of the final grade.

ECTS structure

ECTS credits allocated to the course reflect the total burden to the student during adoption of the course content. Total contact hours, relative gravity of the content, effort required for exam preparation, as well as, every other possible burden are taken in account:

Attendance (active participation)	**Term paper**	**Composition**	**Presentation**	**Continuous assessment and evaluation**	**Practical work**
0,5	1,0				
Independent work	**Project**	**Written exam**	**Oral exam**	**Other**	
		2,5			

Review of topics/units per week associated with learning outcomes

Week	Lectures topics/units and learning outcomes:	Tutorials topics/units and learning outcomes:
1.	Basic concepts in the field of informatics **I 1**	Computer development and use **I 1**
2.	Historical development of computers **I 1**	Computer parts and peripherals **I 2**
3.	Komponente osobnog računala **I 2**	Working with the operating system **I 2**
4.	Personal computer components **I 2**	Text input and processing (MS Word) 1 **I 3**
5.	Computer operating systems **I 3**	Text input and processing (MS Word) 2 **I 3**

6.	Computer software **I 3**	Text input and processing (MS Word) 3 **I 3**
7.	Data organization **I 3**	Working with spreadsheets (MS Excel) 1 **I 3**
8.	Introduction to computer networks **I 4**	Working with spreadsheets (MS Excel) 2 **I 3**
9.	Work in a network environment **I 4**	Working with spreadsheets (MS Excel) 3 **I 3**
10.	Internet **I 4**	Working with presentations (MS PowerPoint) 1 **I 3**
11.	Sharing computer resources **I 5**	Working with presentations (MS PowerPoint) 2 **I 3**
12.	Protection of personal data and privacy **I 5**	Networking and access to network resources **I 4**
13.	Doing business on the Internet **I 6**	Web and mobile applications, work with e-mail **I 4**
14.	Use of virtualization and services **I 6**	Computer protection on the network and the Internet **I 5**
15.	Computer use in industry / IoT **I 6**	Business models: services and virtualization **I 6**

References

REFERENCES (compulsory/additional):
Compulsory: • V. Šimović, F. Maletić, W. Afrić: OSNOVE INFORMATIKE – uvod, Zagreb 2010 • D. Grundler: Primijenjeno računalstvo, Zagreb, 2000 • Unauthorized lecture tracking scripts and presentations (author: Adam Stančić) Additional: On-line data sources related to the presented unit

Exams for the academic year: _____2022./____2023.

Exam dates:	According to the schedule of exams for academic year : published on the web-site

Contact information

1. Course Instructor/Lecturer:	Ph.D Adam Stančić, senior lecturer
e-mail:	adam.stancic@vuka.hr
Office hours / Consultations:	Tue, 10:00, Meštrovićeva 10, 1st floor, room no. 109
2. Course Instructor/Lecturer:	- - -
e-mail:	- - -
Office hours / Consultations:	- - -