

COURSE		INFORMATICS		
LECTURER		Assoc. Prof. Emil Ilić-Georgijević Ph.D.		
STUDY	STATUS	SEMESTER	NUMBER OF LESSONS L+E	ECTS
B – CE,G	Compulsory	1	2+2	4
OBJECTIVES				
<ul style="list-style-type: none"> ☐ Introduction to information technology, computer architecture and system's design. ☐ Understanding theoretical and practical knowledge in informatics, computer architecture, programming, and modern technics of system design ☐ Understanding how operating systems and applications work, learning basic programming skills, learning to use off-the-shelf application programs. 				
COURSE CONTENT				
<ul style="list-style-type: none"> ☐ Learning basics of computing and informatics. Von Neumann-OV model. Hardware and Software. Number systems. Boolean algebra. Computer architecture. CPU. RAM and ROM. Input and output. Peripheral memory. Computer networks. Internet. LAN. Operating systems. Windows. ☐ Solving problems using personal computers. Programming. Algorithms. ☐ Data structures. Data types. Arrays. Records. Files. Database. Data models. Data relations. Relations scheme. SQL. 				
RECOMMENDED LITERATURE				
<ol style="list-style-type: none"> 1. Lecture notes 2. Dr Suad Alagić: Principi programiranja 				
<p>Exam: Students are collecting points during the semester in the amount of 50% of the total points. The other 50% of the points can be collected during the final exam. Points during the semester are split into 3 parts:</p> <ol style="list-style-type: none"> a) 10% for the attendance and class interaction; b) 25% for the assignment in MS Word; c) 25% for the exam in MS Excel; <p>Final exam is related to the theoretical concepts discussed during lectures and one task for the programming part.</p>				

<i>WEEK</i>	<i>LECTURES</i>	<i>PRACTICE CLASSES</i>
<i>1</i>	<i>CONTENT OF THE SUBJECT AND LEARNING APPROACHES. CURRENT TECHNOLOGY USED IN IT.</i>	<i>INTRODUCTION TO SOFTWARE USED IN IT CENTER AND LEARNING ABOUT THE ETHICS OF THE CLASSROOM USE.</i>
<i>2</i>	<i>DATA AND INFORMATION ORGANIZATION. SYSTEM. VALUE OF INFORMATION AND USES IN THE SYSTEM DESIGN. KNOWLEDGE COLLECTION AND SHARING. INTRANET AND EXTRANET.</i>	<i>ASSIGNMENT IN MS WORD.</i>
<i>3</i>	<i>WEB PORTALS AND DEFINITIONS. IS DESIGN AND ARCHITECTURE. METHODOLOGY AND APPLICATION OF METHODOLOGY. PROTOTYPES. DATABASE MANAGEMENT SYSTEMS. USERS' ROLE IN IS DESIGN.</i>	<i>BASIC OPERATIONS IN MS EXCEL AND DOCUMENT FORMATTING.</i>
<i>4</i>	<i>IMPLEMENTATION AND SYSTEM MAINTENANCE. USER TRAINING. PERFORMANCE ANALYSIS. JUNK AND INEFFICIENT COMPUTING.</i>	<i>FORMULAS AND OPERATIONS IN MS EXCEL.</i>
<i>5</i>	<i>OPERATING SYSTEMS AND APPLICATIONS. DEVICES AND MEDIA. NETWORKING AND HACKING. DATA PRIVACY AND E-COMMERCE.</i>	<i>ADVANCED FORMULAS AND ITS USE. IF STATEMENTS.</i>
<i>6</i>	<i>SECURITY AND PRIVACY IN IT. ACCESS CONTROL AND DATA PROTECTION. AFFECTS OF IT REVOLUTION ON BUSINESSES.</i>	<i>DATA PRESENTATION IN MS EXCEL USING GRAPHS.</i>
<i>7</i>	<i>INTRODUCTION TO PROGRAMMING. ALGORITHMS AND DATA FLOW DIAGRAMS.</i>	<i>EXERCISES IN ALGORITHMS AND DATA FLOW DIAGRAMS. (DEADLINE FOR MS WORD ASSIGNMENT).</i>
<i>8</i>	<i>BASIC OPERATIONS AND TYPES.</i>	<i>INSTALLATION OF DEVELOPMENT ENVIRONMENT. WRITING THE FIRST</i>

		<i>PROGRAM. (EXAM IN MS EXCEL)</i>
<i>9</i>	<i>IF STATEMENTS.</i>	<i>EXERCISES USING IF STATEMENTS.</i>
<i>10</i>	<i>FOR, WHILE, AND REPEAT LOOPS.</i>	<i>EXERCISES USING LOOPS.</i>
<i>11</i>	<i>ADVANCED CONCEPTS OF LOOPS. NESTED LOOPS.</i>	<i>EXERCISES USING ADVANCED CONCEPTS OF LOOPS.</i>
<i>12</i>	<i>ARRAYS AND BASIC OPERATIONS WITH ARRAYS.</i>	<i>EXERCISES USING ARRAYS.</i>
<i>13</i>	<i>MULTI-DIMENSIONAL ARRAYS.</i>	<i>EXERCISES USING MULTIDIMENSIONAL ARRAYS.</i>
<i>14</i>	<i>FUNCTIONS AND PROCEDURES.</i>	<i>EXERCISES USING FUNCTIONS AND PROCEDURES.</i>
<i>15</i>	<i>REVIEW OF SEMESTERS WORK AND ADVANCED TASKS.</i>	<i>REVIEW AND DIFFERENT EXERCISES.</i>