

Faculty of Maritime Studies / MARITIME MANAGEMENT AND LOGISTICS / COMPUTERS AND INFORMATICS IN SHIPPING

Course:	COMPUTERS AND INFORMATICS IN SHIPPING			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
10244	Mandatory	1	5	2+0+2
Programs	MARITIME MANAGEMENT AND LOGISTICS			
Prerequisites	No prerequisites required.			
Aims	Introduction to basics of modern computer systems: basics of logical decision making, processing and storing data in a computer, as well as the Windows operating system and the application software (Word for Windows and Excel). Basics of the electronic and global computer network - INTERNET are also provided.			
Learning outcomes	After the completion of exam "Computers and Informatics in Marine Science" (5 ECTS credits), it is expected that students will be able to: 1. Differentiate, compare and convert numbers written in different numerical systems (binary, octal, hexadecimal, BCD, decimal), 2. In detail describe the methods of writing data (size of numbers, alphanumerical signs and instructions) on PC, 3. Differentiate the memory elements and describe its hierarchical organization in general computer system, 4. Make hierarchical organization of files and folders using the appropriate Windows operating system, 5. Organize memory of Windows operating systems, 6. Make document of very high quality and complexity (using tables, graphs, tabs, paragraphs, page numbering, bullets and numbering lists) using application software Word for Windows 2013, 7. Create the database of random level of complexity and make complex calculations using application software Excel 2013, 8. Graphically describe and analyze the calculations made by provided database using application software Excel 2013.			
Lecturer / Teaching assistant	Doc. dr Nevena RADOVIĆ			
Methodology	Lectures, exercises and laboratory exercises, individual work on practical tasks. Consultations.			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Introductory lesson. Computer organization. History and development of computer engineering. Number systems. Binary system.			
I week exercises	Introductory lesson. Computer organization. History and development of computer engineering. Numerical systems. Binary system.			
II week lectures	Numeral systems: octal, hexadecimal.			
II week exercises	Numeral systems: octal, hexadecimal.			
III week lectures	Binary arithmetic.			
III week exercises	Binary arithmetic.			
IV week lectures	Data format. BCD code. BCD code arithmetic.			
IV week exercises	Data format. BCD code. BCD code arithmetic.			
V week lectures	Memories. Instruction and data storing in a computer system. Processor.			
V week exercises	Memories. Instruction and data storing in a computer system. Processor.			
VI week lectures	Test I			
VI week exercises	Test I			
VII week lectures	Operating systems. Organization of memory space. Work with files and folders.			
VII week exercises	Operating systems. Organization of memory space. Work with files and folders.			
VIII week lectures	Graphical user interface operating system - Windows 2010, basics - copy, paste, ...; files and folders.			
VIII week exercises	Graphical user interface operating system - Windows 2010, basics - copy, paste, ...; files and folders.			
IX week lectures	Application software. Usage and basic characteristics. Application software Word for Windows.			
IX week exercises	Application software. Usage and basic characteristics. Application software Word for Windows.			
X week lectures	Basics of Word 2013: Textual document design, Text alignment. Margines settings, ...;			
X week exercises	Basics of Word 2013: Textual document design, Text alignment. Margines settings, ...;			

XI week lectures	Paragraph settings. Bullets and Numbering. Tabs. Header and Footer. 4th homework.					
XI week exercises	Paragraph settings. Bullets and Numbering. Tabs. Header and Footer. 4th homework.					
XII week lectures	Test II					
XII week exercises	Test II					
XIII week lectures	Application software EXCEL 2013. Table design in Excel 2013. Formula and functions.					
XIII week exercises	Application software EXCEL 2013. Table design in Excel 2013. Formula and functions.					
XIV week lectures	Absolute and relative addresses. Graphical presentation in Excel. Charts.					
XIV week exercises	Absolute and relative addresses. Graphical presentation in Excel. Charts.					
XV week lectures	E-mail usage. Global computer network – INTERNET. (corrective test I or II).					
XV week exercises	E-mail usage. Global computer network – INTERNET. (corrective test I or II).					
Student workload						
Per week			Per semester			
5 credits x 40/30=6 hours and 40 minuts 2 sat(a) theoretical classes 2 sat(a) practical classes 0 excercises 2 hour(s) i 40 minuts of independent work, including consultations			Classes and final exam: 6 hour(s) i 40 minuts x 16 =106 hour(s) i 40 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 6 hour(s) i 40 minuts x 2 =13 hour(s) i 20 minuts Total workload for the subject: 5 x 30=150 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 30 hour(s) i 0 minuts Workload structure: 106 hour(s) i 40 minuts (courses), 13 hour(s) i 20 minuts (preparation), 30 hour(s) i 0 minuts (additional work)			
Student obligations			Lessons attendance is mandatory for students, as well as doing laboratory exercises, both tests, and final exams.			
Consultations			Doc. dr Nevena Radović - Tuesday 12:00 do 14:00 pm			
Literature			LJ. Stanković, V.N. Ivanović, M. Radonjić, »Osnovi računarstva«, Podgorica, 2016 (in Montenegrin). R.M. Laković, I. Đurović, Tekst procesori, Univerzitet Crne Gore, 2003 (in Montenegrin). V. Ivanović, Autorizovana predavanja iz globalne računarske mreže			
Examination methods			First test carries 30 points. Second test carries 40 points. Final exam carries 30 points. Student gets the passing grade by collecting 51 points at least.			
Special remarks			If needed, the course can be also taught in English.			
Comment			No.			
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points