## BACHELOR 'S PROGRAMME 1<sup>st</sup> YEAR OF STUDY, 2<sup>nd</sup> SEMESTER

	SE TITLE	INFORMATIONAL TECHNOLOGIES
COURSE CODE		
COURSE TYPE		full attendance
COURSE LEVEL		1 <sup>st</sup> cycle (bachelor's degree)
YEAR OF STUDY, SEMESTER		1 <sup>st</sup> year of study, 2 <sup>nd</sup> semester
NUMBER OF ECTS CREDITS		5
NUMBER OF HOURS PER WEEK		4 (2 lecture hours + 2 seminar hours)
NAME OF LECTURE HOLDER		PhD. Cristian ENACHESCU
NAME		PhD. Cristian ENACHESCU
PREREQUISITES		Advanced level of English
A	GENERAL AND COURSE-SPEC	
	General competences	
	$\rightarrow$ Achievement of pro	fessional tasks efficiently and responsibly, in compliance with the field-specific
deontology legislation		on, with qualified assistance.
	$\rightarrow$ Effective use of int	formation sources and communication resources and assisted professional
	training, both in Roi	manian and in a foreign language.
	Course-specific competen	Ces:
	$\rightarrow$ Identification of IT k	basics use (algorithms, programming languages, specific software, numerical
	$\rightarrow$ Explanation of the	lay of Physics.
	problems	specific steps needed to develop algorithms for solving average dimidulty
	$\rightarrow$ Comparison of the	results given by numerical models or simulations of physical phenomena with
	data provided by lite	erature and/ or experimental measurements.
	$\rightarrow$ Proper use of num encodifie physical de	erical methods and mathematical statistics in the analysis and processing of
	$\rightarrow$ Elaboration of gran	us and reports for explaining and interpreting physical results obtained by
	statistical methods	and reporte for explaining and interpreting physical results obtained by
	→ Critical assessment	of a scientific communication, a paper/specialty report with a reduced degree
	of difficulty.	
	→ Drafting and present for communication	ting scientific reports in the field of Physics by using of new media technologies
В	LEARNING OUTCOMES	
		of this source, students will be able to:
	Upon successful completion	of this course, students will be able to:
	Upon successful completion $\rightarrow$ Use computer appli	cations to write scientific papers, make and perform public presentations.
	Upon successful completion $\rightarrow$ Use computer appli $\rightarrow$ Analyze experimen	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that
	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment</li> <li>characterize the experiment</li> </ul>	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data
	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment</li> <li>characterize the experiment</li> <li>→ Perform analytical or applications</li> </ul>	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data calculations and graphical representations of functions with specialized
C	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment</li> <li>characterize the experiment</li> <li>→ Perform analytical or applications.</li> </ul>	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data calculations and graphical representations of functions with specialized
С	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment characterize the</li></ul>	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data calculations and graphical representations of functions with specialized ter. Components and features. Operating systems.
С	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment characterize the</li></ul>	cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data calculations and graphical representations of functions with specialized ter. Components and features. Operating systems. on. Numerical Representations: binary system, fixed-floating representation,
С	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment characterize the</li></ul>	ter. Components and features. Operating systems. on. Numerical Representations: binary system, fixed-floating representation,
С	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment of a computer applications.</li> <li>LECTURE CONTENT</li> <li>The architecture of a computer File types. Coding information floating-point representation.</li> <li>Using computer programs for Using the Internet. Search experiment floating the Internet.</li> </ul>	ter. Components and features. Operating systems. on. Numerical Representations: binary system, fixed-floating representation, r data processing in physics
С	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment of the applications.</li> <li>LECTURE CONTENT</li> <li>The architecture of a computer File types. Coding informating floating-point representation. Using computer programs for Using the Internet. Search en Writing a scientific paper. Action</li> </ul>	This course, students will be able to: cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that perimental data calculations and graphical representations of functions with specialized ter. Components and features. Operating systems. on. Numerical Representations: binary system, fixed-floating representation, r data processing in physics ngines. Searching for scientific information in the ISI system hieving a scientific presentation (oral paper, poster)
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C D	<ul> <li>→ Use computer appli</li> <li>→ Analyze experiment characterize the experiment of the architecture of a computer programs for Using computer programs for Using the Internet. Search en Writing a scientific paper. Active Scientific calculations using a Digitizing information. Comp Getting started with creating Viruses and other elements a Copyright.</li> <li>RECOMMENDED READING FOR         <ul> <li>http://stoner.phys.uaic.</li> <li>William Stallings Com Upper Saddle River, NJ</li> <li>Robert Schiffreen– Th Publishing Ltd, 2016</li> </ul> </li> </ul>	of this course, students will be able to: cations to write scientific papers, make and perform public presentations. tal data, perform graphical representations, and identify the functions that berimental data calculations and graphical representations of functions with specialized ter. Components and features. Operating systems. on. Numerical Representations: binary system, fixed-floating representation, r data processing in physics ngines. Searching for scientific information in the ISI system hieving a scientific presentation (oral paper, poster) appropriate programs uter Graphics Elements. webpages. HTML. that affect the operation of computers. Legal issues in information technology. <b>ILECTURES</b> ro/moodle/ puter organization and architecture. Designing for performance, Prentice Hall, 07458, 2010 e Web Book: The ultimate beginner's guide to HTML, Oakworth Business
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Editing documents. Tables, e	equations, automatic correction. Writing references		
Making calculations and graphical representations in Microsoft Excel			
I reatment of experimental da	I reatment of experimental data. Rules for data representation		
Microsoft PowerPoint. Lechniques for presenting information.			
Scientific calculations using appropriate programs.			
Image Processing in Graphics Programs			
Creating web pages in HTML.			
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- http://stoner.phys.uaic.ro/moodle/			
- William Stallings Computer organization and architecture. Designing for performance, Prentice Hall,			
Upper Saddle River, NJ 07458, 2010			
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Publishing Ltd, 2016	Publishing Ltd, 2016		
https://www.originlab.com	https://www.originlab.com/		
https://www.maplesoft.com/support/help/			
G EDUCATION STYLE			
LEARNING AND TEACHING METHODS	Lecture, didactic explanation, heuristic conversation, video projection,		
	problem solving method case studies		
	N/ritton tosto		
ASSESSIVIEINT IVIETHUDS			
	Practical tests		
LANGUAGE OF INSTRUCTION	English		