

POLITEHNICA University of Bucharest (**UPB**)
 Faculty of Engineering and Management of Technological Systems (**IMST**)
 Study Programme: Industrial Engineering (**IE**)
 Form of study: Licence (Bachelor)

COURSE SPECIFICATION

Course title:	Computer Programming 2	Semester:	2
Course code:	UPB.06.F.02.O.005	Credits (ECTS):	6

Course structure	Lecture	Seminar	Laboratory	Project	Total hours
<i>Number of hours per week</i>	2		2	2	6
<i>Number of hours per semester</i>	28		28	28	84

Lecturer	Lecture	Seminar / Laboratory / Project
<i>Name, academic degree</i>	Bogdan ABAZA, Assoc. Prof.	Paulina SPÂNU, Lect.
<i>Contact (email, location)</i>	bogdan.abaza@upb.ro	paula.spanu@upb.ro

Course description:
<p>Attending this course will help students to achieve these objectives:</p> <ul style="list-style-type: none"> • Developing of logical and structural thinking • Choosing the right and efficient type of data, functions and structures in order to have a correct conversion from algorithm to computer program (software). • Efficient use of graphical programming environment resources for solving engineering problems: using Graphs, understanding the main steps into a software project, choosing the right features and procedures for complex mathematical calculations, designing an algorithm for simulation of a simple physical phenomenon and developing the software for it. • Understanding the development of a software product
Seminar / Laboratory / Project description:
<p>During the laboratory and project activities students will learn how to work in LabVIEW developing software applications to support the activities of other disciplines: generating arrays with loops, graphs, linear algebra, regressions function, statistical calculus, graphical simulations, working with input and output files.</p>
Intended learning outcomes:
<ul style="list-style-type: none"> • Make calculations, demonstrations and applications for solving industrial engineering specific tasks based on knowledge of fundamental sciences . • Use of the software and of the informational technology to solve specific tasks in industrial engineering field.

Assessment method:	% of the final grade	Minimal requirements for award of credits
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Written exam	20%	10%
Report / project	40%	20%
Homework		
Laboratory	40%	20%
Other		

References:	
<ul style="list-style-type: none"> • Abaza B., Savu T., Spanu P., Algoritmi, Îndrumar de laborator, Editura PRINTECH, 2014, ISBN: 978-606-23-0229-0, 117 pag (cod CNCISIS 54) • Savu T., Abaza B., Spanu P., Reprezentări grafice, Îndrumar de laborator, Editura PRINTECH, 2014, ISBN: 978-606-23-0230-6, 87 pag (cod CNCISIS 54) • B. Abaza -Computer Programming II Course. UPB e-learning platform • T. Savu, G. Savu; Informatica – Tehnologii Asistate de Calculator, manual pentru clasa a X-a; Ed. ALL, Bucuresti, 2000 • M. Munteanu, B. Logofatu, R. Lincke; Instrumentatia Virtuala - LabVIEW; Ed. CREDIS, Bucuresti, 2000 • M. Munteanu, B. Logofatu, R. Lincke; Aplicatii de Instrumentatie Virtuala - LabVIEW; Ed. CREDIS, Bucuresti, 2000 • L. Arsenoiu, T. Savu, A. Szuder; Bazele programarii in LabVIEW, Ed. PrinTech, Bucuresti, 1999 (se gaseste doar in biblioteca) 	
Prerequisites:	Co-requisites (courses to be taken in parallel as a condition for enrolment):
Computer Programming I, Mathematics	English, Physics, Geometry, Mechanics
Additional relevant information:	

Date: 14,07,2016

Professional degree, Surname, Name: Assoc. Prof., Bogdan Felician ABAZA PhD