POLITEHNICA University of Bucharest (**UPB**)
Faculty of Industrial Engineering and Robotics (**IIR**)
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):*	5

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

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

Assessment method:	% of the final grade	Minimal requirements for

		award of credits

Course description:

Attending this course will help students to achieve these objectives:
- 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:

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.

Intended learning outcomes:

- 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.

Written exam	20%	10%
Report / project	40%	20%
Homework		
Laboratory	40%	20%
Other		

References:

- Abaza B., Savu T., Spanu P., Algoritmi, Îndrumar de laborator, Editura PRINTECH, 2014, ISBN: 978-606-23-0229-0, 117 pag (cod CNCSIS 54)
- Savu T., Abaza B., Spanu P., Reprezentări grafice, Îndrumar de laborator, Editura PRINTECH, 2014, ISBN: 978-606-23-0230-6, 87 pag (cod CNCSIS 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