Basic Information

Course name	COMPUTER PROGRAMMING							
Syllabus code	51380407							
Specialization	Electronică, Telecomunicații si Tehnologia Informației							
Credit	4							
Teacher	Vaida Mircea-Florin							
Faculty	Electronics, Telecommunication and Information Technology							
Department	Communication							
Teaching	Semester I				Semester II			
	Lecture	Applications			Lecture	Applications		
	Hours/week				Hours/week			
		S	L	P		S	L	P
	2		2					
Assessment	50% Final examination, 25% Lab. tests, 25% Practical work.							
Prerequisites	Basic Programming notions but not compulsory							
References	C/C++ References from literature and web							
Course web site	http://mercur.utcluj.ro							

Description

Aims	To use a programming language to develop basic engineering applications	
Learning Outcomes	Knowledge/understanding	To learn about: -simple algorithms -computer architecture and programming languages -the basic elements of the C/C++ language
	Theoretical Skills	♦ Basic concepts about programming computers ♦ Basic elements about programming in C/C++ language
	Practical Skills	♦ Abilities to describe and develop simple algorithms ♦ Abilities to use a C/C++ programming medium ♦ Abilities to develop, debug and test C/C++ applications

Introduction in computer programming. Classification and evolution of programming languages, programming principles. Anatomy of a computer. Introduction concerning C/C++ programming. Predefined data types in C/C++. Aggregate types: arrays, structures. Functions. Elements of preprocessing in C/C++. Input/output operations in C/C++. Operators in C language. Control of program flow in C/C++. Memory classes. Initialization of variables and arrays. Pointers in C. Arguments transfer to main function. Dynamic allocation in C/C++. User defined data types, struct, unions, bit fields. Typedef, enum. New considerations concerning preprocessing, macro functions, input/output in C/C++. Files in C/C++. New considerations concerning functions in C++: inline, constant param., variable no. of parameters, overloading .