Program	Level of studies		First cycle	
	Program name		**Educational Physics**	
Course name	**INTRODUCTION TO COMPUTER SCIENCE FOR PHYSICISTS II**			
Course ID	Semester	Course status	ECTS credits	L+E
PCS2211	**II**	**ELECTIVE**	**2**	**0+2**
Lecturer	**Prof. dr. Senad Odžak**			
Aims and intended learning outcomes	The objective of the course is to introduce students to perform various calculations in the Mathematica software package. It is expected that students successfully adopt the content of the course and that the acquired knowledge is successfully applied in their further academic education and/or scientific work.			

Course content

Introduction to Mathematica package. Manipulations with numbers. Manipulations with symbolic expressions. Logical terms and their use. Solving equations, inequalities, and systems. Manipulations with lists, vectors and matrices. Function graphs. Examples in physics. Introduction to procedural programming. Basic numerical calculations. Export and import of data. Examples in physics.

Student workload (hours)		Grading	
Lectures and Exercises	30	Assessment method	Points
Exam preparation	15	Course Test	50
Assignments	0	Final Exam	50
Other	5		
Total	50		
		Total	100

Literature

1. Lecture Notes
2. Ž. Jurić, Interaktivna računanja u programskom paketu Mathematica, skripta, PMF, Sarajevo, 2006.
3. S. Wolfram, The Mathematica Book, Cambridge University Press, Cambridge, 2003.

Remarks

The successful completion of the course implies achieving at least 55% of the total number of points in both the partial and final exam.