1.1. Course description

NAME OF THE COURSE	Research in Computational Physics II					
Code	PMP232	Year of study	2			
Course teacher		Credits (ECTS)	5,0			
Associate teachers		Type of instruction (number of hours)	P	S	V	T
			5	15		
Status of the course	OPTIONAL COURSE	Percentage of application of e-learning	20 %			
COURSE DESCRIPTION						
Course objectives	To enable students to develop physical models, programmes and simulations, and other program activities, with the aim of solving complex problems in physics and interdisciplinary.					
Course enrolment requirements and entry competences required for the course	The learning outcomes of Bachelor programmes in physics					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	- Explore, develop and present a physical model for the selected problem in physics or interdisciplinary - Develop a program or adapt existing complex software packages for the selected problem - Make a simulation of physical models or other form of start the selected program. - Prepare and present a seminar work.					
Course content broken down in detail by weekly class schedule (syllabus)	1. Principles for making physical models 2. Development of a software package and adopting of selected existing complex programmes in physics 3. Simulation of selected programmes 4. Visualization of results 5. Relations to the measurements and their implementation by using computers					
Format of instruction	The active work of students, with professional guidance.					
Student responsibilities	- Prepare a physical model for the selected problem. - Prepare a programme or adopt the selected software packages. - Carry out simulation or other forms of programme implementation. - Prepare and present a seminar paper.					

Screening student work *(name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)*	1 ECTS: Active participation in the preparation 4 ECTS: Independent preparation and presentation of the work program
Grading and evaluating student work in class and at the final exam	Preparation and presentation of the work program (100%)
Required literature (available in the library and via other media)	Various software packages and instructions
Optional literature (at the time of submission of study programme proposal)	Free – in agreement with supervisor
Quality assurance methods that ensure the acquisition of exit competences	- Analysis of the acquired learning outcomes at the end of the class, compared with the introductory work of studens. - Monitoring the development of students in the subjects who followed the links with the success of the case - Other surveys of students
Other (as the proposer wishes to add)	