NAZIV PREDMETA	Clasical Mechanics					
Code	PMP116	Year of study	2			
Course teacher	Associate professor Željana Bonačić Lošić	Credits (ECTS)	8,0			
Associate teachers		Type of instruction (number of hours)	P	S	V	T
			45		45	
Status of the course	obligatory	Percentage of application of e-learning				
OPIS PREDMETA						
Course objectives	Develop the student commpentences in theoretical mechanics that are useful for further studies and application in their area of expertise.					
Course enrolment requirements and entry competences required for the course						
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Student should be able to correctly state and apply the basic concepts and laws of theoretical mechanics. Construction of Lagrange function. Derivation and solving Lagrange equations. Transition from Lagrange's formalism to Hamilton's formalism. Explanation of the incompressibility of the phase space. Apply mathematical knowledge in physics.					
Course content broken down in detail by weekly class schedule (syllabus)	Newton's laws 12. Lagrange's formalism 30. Homogeneity and isotropy of the space, homogeneity of time and conservation laws 10. Small vibrations 12. Normal coordinates 4. Dynamic of the rigid body 10. Hamilton's formalism 10. Phase space 1. Liuoville's theorem 1.					
Format of instruction	Lectures. Solving problems instructed by assistant. Uninfluenced solving of problems. Check of the solved problems and discussion on tutorials.					
Student responsibilities						
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)*	Written exam 4 ECTS. Oral exam 4 ECTS.					
Grading and evaluating student work in class and at the final exam	Preliminary exams. Written exam. Oral exams.					

Required literature (available in the library and via other media)	H. Goldstein, Classical Mechanics, Wiley, NY, 1950.
Optional literature (at the time of submission of study programme proposal)	L.D. Landau i E.M. Lifšic, Mehanika, Nauka, Moskva, 1979.
Quality assurance methods that ensure the acquisition of exit competences	Student's opinion poll.
Other (as the proposer wishes to add)	