Program	Level of studies		First cycle	
	Program name		Educational Physics	
Course name	THEORY OF ELECTROMAGNETIC FIELD			
Course ID	Semester	Course status	ECTS credits	L+E
PTH5611	**V**	**MANDATORY**	**6**	**2+2**
Lecturer	**Prof. dr. Senad Odžak**			
Aims and intended learning outcomes	The aim of the course is to introduce students at a more advanced level into classical electrodynamics through lectures and auditory exercises. It is expected that students successfully adopt the content of the course and that the acquired knowledge is successfully applied in further academic education and/or scientific work.			

Course content
Introduction. Electrostatics. Magnetostatics. Maxwell's Equations in Free Space. Maxwell's Equations in Matter. Conservation Laws in Electrodynamics. Electromagnetic Waves in Vacuum.Electromagnetic Waves in Matter. Absorption and Dispersion. Guided Waves. Potentials and Fields. Radiation.

Student workload (hours)		Grading	
Lectures and Exercises	75	Assessment method	Points
Exam preparation	70	Course Tests (Multiple assignments)	60
Assignments	0	Final Exam (Theory)	40
Other	5		
Total	150		
		Total	100

Literature

1. Lecture Notes
2. David J. Griffiths, Introduction to Electrodynamics, Pearson Education, Glenview, 2013.
3. W. Greiner, Classical Electrodynamics, Springer, New York, 1998.

Remarks

The successful completion of the course implies achieving at least 55% of the total numer of points in both the course tests and final exam. All examination is done by using the written method.