Program	Level of studies		**First cycle**	
	Program name		**Physics**	
Course name	**LASER PHYSICS FUNDAMENTALS**			
Course ID	Semester	Course status	ECTS credits	L+E
PTH6411	**VI**	**ELECTIVE**	**4**	**2+1**
Lecturer	**Prof. dr. Dejan Milošević**			
Aims and intended learning outcomes	The aim of the course is to introduce students to basic concepts of laser physics. The learning outcome is mastering knowledge from the basics of laser physics.			

Course content
Interaction of laser radiation with matter. Creation of inverse population. Optical resonators. Continuous and non-stationary laser modes. Types of lasers. Laser applications.

Student workload (hours)		Grading	
Lectures and Exercises	50	Assessment method	Points
Exam preparation	50	Partial exam	50
Assignments		Final exam	50
Other			
Total	100		
		Total	100

Literature

Mandatory:

1. D. Milošević, Osnove lasera (sa zbirkom riješenih zadataka), 1996. (available at e-learning)

Recommended:

1. V. Henč-Bartolić, L. Bistričić, Predavanja i auditorne vježbe iz fizike lasera, Element, Zagreb, 2001.
2. D. Milatović, Optoelektronika, Svjetlost, Sarajevo, 1987.
3. N. Konjević, Uvod u kvantnu elektroniku, laseri, Naučna knjiga, Beograd, 1981.
4. S. Lugomer, M. Stipančić, Laser – fizikalne osnove, konstrukcija i primjene, Svjetlost, Sarajevo, 1977.
5. W. T. Silfvast, Laser Fundamentals, Cambridge University Press, Cambridge, 1996.

Remarks