Program	Level	First cycle
	Name of the program	Applied Mathematics, Pure Mathematics

COURSE

Course title	**Partial Differential Equations**			
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)
AMAT 270	I	Mandatory course	5	3+2+0
Lecturer				
Course Goals	This course aims to teach the basics of first-order Partial differential equations (PDEs). PDEs are essential subjects in many branches of pure mathematics, applied mathematics, physics, and applied science.			
Learning Outcomes	After completing the module, the student will be able to: - solve linear, quasi-linear and nonlinear first-order PDEs - understand how to solve Cauchy problem - solve Pfaff's equation			

COURSE CONTENT

First-order PDE. Lenar PDEs. Quasi-linear PDEs. Cauchy problem. Pfaff's equations. Nonlinear First - order PDEs. The Lagrange-Charpite Method. Method of characteristics.

LITERATURE

[1] I. Aganović, K. Veselić, Linearne diferencijalne jednadžbe, Element, Zagreb, 1997.
[2] G. B. Folland, Introduction to partial differential equations, Princeton University Press, 1995.
[3] F. John, Partial differential equations, Springer Verlag, 1982.
[4] S. Kalabušić, N. Memić, E. Pilav, Parcijalne diferencijalne jednačine, PMF, Sarajevo, 2015
[5] K. Yosida, Lectures on Differential and Integral Equations, New York, 1991

STUDENT WORKLOAD (hours in a semester)

Lectures	45	Tutorial	30	Individual work	50	T o t a l	125

GRADING

Criterion	Maximum points	Minimum points
Midterm exams	50	25
Homework assignment	-	-
Project	-	-
Laboratory assignments	-	-
Final exam	50	30
T o t a l	100	55

REMARKS

Midterm exam: only once in semester (end of November or first week of December). Students altogether write 120 minutes long test. This test is evaluated by max 50 points. The minimal score of the test is 25 points.

Final exam: Students who do not reach the midterm exam minimal score must take the entire course in the final exam. In this case, the final exam is evaluated by max 100 points. The final exam's minimal score is 55 points. Students who reach the midterm exam minimal score take only the part of the final exam that is not covered by the midterm test. In this case, the final exam is evaluated by max 50 points. The minimal score is 30 points.