Program	Level	First cycle
	Name of the program	All study programs

COURSE				
Course title	**Elementary Mathematics**			
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)
PMAT 110	I	Mandatory course	4	2+2+0
Lecturer				
Course Goals	The goal of this course is to systematize, widen and expand students' knowledge about elementary functions, exponential, logarithmic and trigonometric equations and inequalities, and trigonometric identities.			
Learning Outcomes	After successful completion of this course, it is expected that student will: - have the knowledge of elementary functions, - know and understand trigonometric identities, - upgrade his/her knowledge about plane analytical geometry (different forms of line equations and conic sections)			

COURSE CONTENT

- Absolute value.
- Quadratic functions, equations and inequalities.
- Polynomials. Zeroes of polynomials. Theorem on the equality of polynomials. Divisibility of polynomials. Horner's scheme. Greatest common divisor of a polynomial.
- Polynomial functions. Exponents and roots.
- Exponential functions.
- Logarithmic function. Logarithms.
- Exponential equations and inequalities.
- Logarithmic equations and inequalities.
- Irrational equations and inequalities.
- Trigonometric functions. Trigonometric identities.
- Trigonometric equations and inequalities.
- Inverse trigonometric functions.
- The concept and properties of rational function. Partial fraction decomposition of a rational function.
- Conic sections (circle, ellipse, hyperbola and parabola).

LITERATURE

[1] B. Pavković, D. Veljan, Elementarna matematika I i II dio, Zagreb , 1995.

[2] R. Živković, H. Fatkić, Z. Stupar, Zbirka zadataka iz matematike sa rješenjima, uputama i rezultatima, Sarajevo, 1987.

[3] Š. Arslanagić, Matematika za nadarene, Sarajevo, 2005.

STUDENT WORKLOAD (hours in a semester)

Lectures	30	Tutorial	30	Individual work	40	T o t a l	100

GRADING			REMARKS
Criterion	Maximum points	Minimum points	
Midterm exams	50	25	
Final exam	50	30	
T o t a l	100	55	