Study program	Level of studies	Third cycle
	Title of the study program	Science and mathematics education

COURSE

Course title	**P-adic analysis**			
Course ID	Semester	Course status	ECTS credits	Contact hours
PMAT 652	II	Elective	10	60
Lecturers	Lecturer in charge			
	Other lecturers			
Course aims				

CONTENT

#	Teaching units	Contact hours L	E / S	C
	- Field of p-adic numbers. Groups of whole. Theorem of Ostrowski. - Topology in the P-Adic field. - Absolute values in the field of rational numbers; Completes; - Nonarhimedian topology of p-adic number fields; Hensel's lemma; - p-adic series and arrays; - p-adics functions. Continuity and differentiability; Power series; - Analytical functions; Some elementary functions; - Invariant measure in the field of p-adic numbers; Integration theory; - p-adic theory of algebraic numbers - Convolution and Fourier's transformation. - · Pseudo differential operator.	30	30	

LITERATURE

[1] Andrew Baker, An Introduction to p-Adic Numbers and p-Adic Analysis.

[2] F. Baldssari, p-Adic Analisis, Lecture Notes in Mathematics, Springer 1989.

[3] Kurt Mahler, pAdic Numbers and Their Functions, Cambridge University Press 1981.

[4] Alain M. Robert, A Course in p-Adic Analysis, Graduate Texts in Mathematics, Springer 1983.

[5] V.S. Vladimirov, p-Adic Analysis and Mathematical Physics, Series on Soviet and East European

ASSESSMENT OF LEARNING

	Assessment method	Points	Threshold
1.	Partial exams	25	13
2.	Seminar papers	25	12
3	Final exam	50	30
4.			
	Total	100	55