

Course Information Sheet

University: <i>University of Prešov in Prešov</i>	
Faculty: <i>Faculty of Humanities and Natural Sciences</i>	
Code: <i>2MAT/mMATH1/22</i>	Title of Course: <i>MATHEMATICS 1</i>
Form of Study: <i>Lectures</i>	
Number of contact hours: <i>26</i>	
per week: <i>2/0</i> per level/semester:	
Number of credits: <i>4</i>	
Semester: <i>winter</i>	
Degree/Level: <i>Bc.</i>	
Prerequisites:	
Grading Policy (Assessment/Evaluation): <i>written test</i>	
Aims and Objectives: <i>Acquaintance and practical mastery of matrix calculus, linear algebra, and the theory of a function of one real variable, and their applications.</i>	
Syllabus/Indicative Content: <i>1. Matrices, matrix calculus, determinants and their applications.</i> <i>2. System of linear equations, methods of its solutions, and its applications.</i> <i>3. Elementary functions, their properties and graphs, their applications for solving problems.</i> <i>4. Number sequence, its limit and applications.</i> <i>5. Continuity and limit of a function.</i> <i>6. Interpolation and approximation of a function.</i>	
Suggested readings: <i>1. Beezer, R. A. 2015. A First Course in Linear Algebra. University of Puget Sound.</i> <i>2. Danko, P. E., Popov, A. G., Koževnikova, T. J. 1986. Vysšaja matematika v upražnenijach i zadačach I (Russian). Moskva: Vysšaja škola.</i> <i>3. Eliáš, J., Horváth, J., Kajan, J., (Šulka, R.). 1966. Zbierka úloh z vyššej matematiky 1-4. (Slovak). Bratislava: Alfa.</i> <i>4. Kluvánek, I., Mišík, L., Švec, M. 1965. Matematika I (Slovak). Bratislava: SVTL.</i> <i>5. Macurová, A., Macura, D. 2007. Mathematics 1. Košice: FVT TU.</i> <i>6. Mattuck, A. 1999. Introduction to Analysis, Prentice Hall, Upper Saddle River.</i> <i>7. Protter, M.H., Morrey, C. B., 1991. A First Course in Real Analysis. 2nd Ed. Springer-Verlag.</i>	
Language of Instruction: <i>English</i>	
Other course information:	
Lecturer/Instructor: <i>doc. Mgr. Ján Brajerčík, Ph.D.</i>	
Last update: <i>3. mája 2024</i>	
Approved by: <i>doc. Mgr. Ján Brajerčík, Ph.D.</i>	