

Course: MATHEMATICS 2	Course type: Lecture+Seminar	Credits:	Course ID: KTAK101b
Course responsible:	Programme type: full time	Hours/Semester 16	Assessment: End-semester exam
Course objectives: Acquiring basic knowledge of vectors, complex numbers, linear algebra, numerical, power and trigonometric sequences and series.			
Competencies to be improved: Knowledge: T1, T8 Ability: K5, K6 Attitude: A2 Autonomy and responsibility: F1			
Compulsory literature: Raymond A. Barnett, Michael R. Ziegler, Karl E. Byleen: College Mathematics for Business, Economics, Life Sciences and Social Sciences. Pearson Education, Harlow, Essex, 2015. https://nguyenvantien0405.files.wordpress.com/2017/09/college-mathematics-for-business-raymond-a-barnett.pdf			
Recommended literature: John C. Sparks: The Handbook of Essential Mathematics. Editors: Donald D. Gregory and Vincent R. Miller. Air Force Publication, 2006. https://florida.theorange grove.org/og/file/3a8c652c-11d0-e967-95fb-b5bbae2586d6/1/math_handbook.pdf			
Course content: Vectors. Operations with vectors, expansion into components. Complex numbers. Canonical, trigonometric, exponential forms of complex numbers. Operations with complex numbers. Matrix algebra. Operations with matrices. Special matrices. Solution of systems of linear equations. Numerical sequences. Limit, boundedness, monotonicity of sequences. Limits of special sequences. Numerical series. Convergence, sum, partial sum. Expansion of functions into series. Power series. Taylor polynomials, Fourier series.			
Course requirements: Attendance of classes, keeping up with lectures			
Grading scale: >80 %: excellent, 79-70 %: good, 69-60 %: satisfactory, 59-50 % pass			
Course Programme: WJLF ENVIRONMENTAL SCIENCE	Semester: 2019_2020_1	Lecturer: Dr. István Kun	