

Title of the course: Mathematics II.	NEPTUN code: RXXMA2EBNE	Weekly teaching hours: $l+cw+lb$ 2+3+0	Credit: 6 Exam type: e
Course leader: Henry Mastrapa Gonzalez Dr.	Position: college professor	Required preliminary knowledge: NMXAN1EBNE sign	
Curriculum:			
Introduction of complex numbers. The most important types of ordinary differential equations and construction of their solutions. Basic concepts of linear algebra. Vector geometry of the 3-dimensional Euclidean space. Convergence in n-dimensional Euclidean spaces. Differential calculus of functions in several variables. Geometrical problems connected to smooth curves and surfaces. Basic concepts of mathematical statistics. Construction of the line of linear regression.			
Professional competencies:			
Knowledge of general and specific mathematical, natural and social scientific principles, rules, relations, and procedures as required to pursue activities in the special field of environment protection. In possession of state-of-the-art IT skills, being able to use professional databases and certain design, modelling, and simulation softwares depending on their specialty. Able to participate creatively in engineering work based on their multidisciplinary skills, as well as to adapt to continuously changing circumstances. Open to professional cooperation with specialists related to their profession but involved in other areas.			
Literature:			
1. Anton, H., Rorres, C.: Elementary Linear Algebra with Applications, 9e, Wiley, 2005, ISBN: 0-471-66959-8.			
2. Thomas, G.B. et al.: Thomas' Calculus, 11e, Addison-Wesley, 2005, ISBN: 0-321-18558-7.			
3. Scharnitzky V. (szerk) Matematikai feladatok, Tankönyvkiadó, 1989.			
Comment:			