Name: **Calculus II**		NEPTUN-code: *NMXAN2EBNE*	Number of periods/week: full-time: 3 lec + 3 sem + 0 lab
Credit: 6 Requirement: exam		Prerequisite: *NMXAN1EBNE* Mathematics I – Calculus I	
Responsible: István VAJDA, Ph.D.	Position: senior lecturer	Faculty and Institute name: John von Neumann Faculty of Informatics Institute of Applied Mathematics	

Way of assessment:
-   mid-term tests and written or oral examination

Competences

Course descrition:

The aim of the course is to extend students' skills to apply techniques of one- and multivariable calculus, and further develop their ability to efficiently use Matlab in solving practical problems.
Course material: integration by parts and by substitution, applications. Improper integral. Laplace-transform, applications. Numerical and function series. Curves in planes and spaces. Continuity and limits of multivariable functions, partial and total differentiability. Extreme values of multivariable functions. Symbolic and numerical integration of two-variable functions. The concept and solution of differential equations, applications.

Literature

József Kovács, Gábor Takács, Miklós Takács: Calculus, Nemzeti Tankönyvkiadó, 2001 (in Hungarian)
György Baróti Dr., Miklós Kis, Edit Schmidt, Zsuzsanna Lukács Dr. Sréterné: Mathematical Tasks Collections, BMF KKVFK, 2000 (in Hungarian)
Fekete-Zalay: Multivariate Analysis Functions, Műszaki Könyvkiadó, 2007 (in Hungarian)