Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
ECON104	Multivariate Functions	2	4	0	0	4	7

Prerequisites	
Admission Requirements	

Language of Instruction	French
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	The objective of this course is to acquire the mathematical tools necessary for studying economics. The course follows the single-variable analysis courses. Essentially, we will apply methods of differential and integral calculus to the study of functions of several variables.
Content	-Functions of several variables. Drawing surfaces. Level curves. Limit. Continuity. Partial derivatives. Gradient and level curves. Directional derivative. Differential. Taylor formula. Local extrema. Constrained extrema. Implicit functions. Integral.
References	1) Sydsæter, Knut, and Peter J. Hammond. Maths pour l'Economie, 2014. (Chapitres 11- -14 et 9) https://membres-ljk.imag.fr/Bernard.Ycart/mel/ 2) Vector Calculus, 4th Edition, S.J.Colley. 3) Calculus, with Analytic Geometry, R.A.Silverman (Chapitres 11- -15) 4) http : //exo7.emath.fr/cours/chplusvar.pdf

Theory Topics

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