COURSE OUTLINE

DENUMIREA DISCIPLINEI	**APPLIED MATHEMATICS IN ECONOMICS**	

ANUL DE STUDIU	I	SEMESTRUL	1	STATUTUL DISCIPLINEI (OB-obligatorie/OP-opțională/F-facultativă)	OB

NUMĂRUL ORELOR PE SAPTĂMÂNĂ				TOTAL ORE SEMESTRU	TOTAL ORE ACTIVITATE INDIVIDUALĂ*	NUMĂR DE CREDITE	TIPUL DE EVALUARE (P-pe parcurs, C-colocviu, E-examen, M-mixt)	LIMBA DE PREDARE
C	S	L	Pr.					
2	2	-	-	56	94	5	M	ROMANIAN

TITULARUL DISCIPLINEI	GRADUL DIDACTIC AND ȘTIINȚIFIC, PRENUMELE, NUMELE	CATEDRA
	Lect. Gheorghe Rusu, PhD, Lect. Marius Spînu, PhD	Business Information Systems

DISCIPLINE ANTERIOR ABSOLVITE	Algebra (9th-11th form) and Mathematical Analysis (11th – 12th form)

OBIECTIVE	1. To coherently and logically introduce notions of mathematics used in economics; 2. To mathematically ground the theory of economic phenomena modelling; 3. To create the skills needed in mathematically modelling and solving some important types of economic phenomena; 4. To qualitatively and quantitatively study types of economic problems, using the studied mathematic apparatus.

TEMATICĂ GENERALĂ	1. Elements of liniar algebra;
	2. Liniar programming theory;
	3. Elements of mathematic analysis applied in economics:
	  • The theory of numeric series and of power series;
	  • The study of n- variable functions
	  • The study of local extreme problems (conditioned and non-conditioned);
	  • Improper integrales (particular case: Euler's integrals, type I and II).

TEMATICA SEMINARIILOR / LUCRĂRILOR DE LABORATOR	1. Applications of elementary transformations; 2. Applications in the study of R^n vectors and of liniar operators; 3. Simplex algorithm, the method of the two phases, transport problems; 4. The study of numeric and power series convergence, the development of functions in power series; 5. Partial differentials of order I and II, differentials of order I and II for n-variable functions (particular cases n = 2, n = 3); 6. Determining points of local extreme for functions of 2 and 3 variables; Lagrange multiplier method; 7. The study of improper integral convergence, applications of Euler integrals;
METODE DE PREDARE	Classical and interactive teaching (coursebook, practice book, multiple choice test book, both as hard copies and in electronic format, with solved applications and problems proposed to be solved). Interactive solving of proposed problems and exercises; detailed presentation of how to solve complex problems, using the overhead/videoproiector; proposed seminar topic that will be solved individually by the students, followed by discussions.

BIBLIOGRAFIE OBLIGATORIE (SELECTIV)	1. Diaconița, V., Rusu, Gh., Spînu, M., *„Matematici aplicate în economie"*, Edit. Sedcom Libris, Iaand , 2004; 2. Diaconița, V., Rusu, Gh., Spînu, M., *„Matematici aplicate în economie - teste grilă"*, Edit. Sedcom Libris, Iaand , 2004; 3. Diaconița, V., *„Matematici aplicate în economie - culegere de probleme"*, Edit. Paralela 45, ediția IV-a, Pitești, 2004;

EVALUARE	condiții	Exam grade (EG) of at least 5,00; The average between the mid—termevaluation (MTE) and the exam grade (EG) must be of at least 5,00.
	criterii	• Grades obtained for the two semester papers and te eexam grade, respectively • Attendance and contribution to the lecture and seminary • Other activities that evince the students' interest for the discipline;
	forme	MTE = 0,5 . L_1 + 0,5 . L_2 + A (A = appreciation throughout the year, maximum 1,5 points) EG = 0,4 . Gmc + 0,6 . Gw (G_G = grade for the multiple choice test ; G_S = grade for the written exam)
	formula notei finale	FG = 0,5 . MTE + 0,5 . EG (FG = final grade)