

„Aurel Vlaicu“ University of Arad
 Faculty of Exact Sciences
 Department: Mathematics and Computer Science
 Field: Mathematics
 Study program: Mathematical modeling in research and didactics (in English)

CURRICULUM
 Academic year 2019-2020
 Year I

Code	Subject	Course status	S.I./ Sem (hrs)	Hours per week and Evaluation type											
				1 st Semester 14 weeks						2 nd Semester 14 weeks					
				C	S	L	Pr	Ev	K	C	S	L	Pr	Ev	K
COMPULSORY COURSES															
GmEA1001	Special Chapters of Operator Theory	DA	108	2	1	-	-	Ex	6	-	-	-	-	-	-
GmEA1002	Harmonic Analysis	DA	108	2	1	-	-	Ex	6	-	-	-	-	-	-
GmEU1003	Lie Algebra and Mathematical Modelling in Physics	DU	97	1	1	-	-	Ex	5	-	-	-	-	-	-
GmEU1004	Optimization Models for Decision Making	DU	97	1	-	1	-	Ex	5	-	-	-	-	-	-
GmEU1005	Ethics and academic integrity	DT	36	1	-	-	-	Cn	2	-	-	-	-	-	-
GmEA2006	Theory of Dilatation and Operatorial Models	DA	108	-	-	-	-	-	-	2	1	-	-	Ex	6
GmEA2007	C* Algebra and Hilbert Modules	DA	133	-	-	-	-	-	-	2	1	-	-	Ex	7
GmEA2008	Convex Analysis	DA	133	-	-	-	-	-	-	2	1	-	-	Ex	7
GmET2009	Research Project A	DT	72	-	-	-	-	-	-	-	-	-	2	Cn	4
	TOTAL			7	3	1	-	-	24	6	3	-	2	-	24
ELECTIVE COURSES															
	Package 1														
GmET1A11	Using software in teaching mathematics	DT	108	2	1	-	-	Ex	6	-	-	-	-	-	-
GmET1A12	Special Chapters of Stability Theory	DT	108	2	1	-	-	Ex	6	-	-	-	-	-	-
	Package 2														
GmET2A21	Fuzzy Systems	DT	108	-	-	-	-	-	-	1	2	-	-	Ex	6
GmET2A22	Statistic Data Analysis and Processing	DT	108	-	-	-	-	-	-	1	2	-	-	Ex	6
	TOTAL			2	1	-	-	-	6	1	2	-	-	-	6
TOTAL ELECTIVE COURSES				9	4	1	-	-	30	7	5	-	2	-	30
FACULTATIVE COURSES															
GmET1F10	Psycho-pedagogy of adolescents, young people and adults	DT	83	2	1	-	-	Ex	5	-	-	-	-	-	-
GmEA1F11	The didactics of the field and developments in the didactics of mathematics	DA	83	2	1	-	-	Ex	5	-	-	-	-	-	-
GmET2F12	Design and management of educational programs	DT	83	-	-	-	-	-	-	2	1	-	-	Ex	5
GmEA2F13	Counseling and guidance	DA	83	-	-	-	-	-	-	1	2	-	-	Ex	5

RECTOR
 Prof. dr. Ramona Lile

DEAN
 Prof. dr. Mariana Nagy

HEAD OF DEPARTMENT
 Prof. dr. Ghiocel Moț

Legend: DA– proficiency course; DT – synthesis course; DU – advanced course

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CURRICULUM
 Academic year 2020 - 2021
 Year II

Code	Subject	Course status	S.I./ Sem (hrs)	Hours per week and Evaluation type											
				1 st Semester 14 weeks						2 nd Semester 14 weeks					
				C	S	L	Pr	Ev	K	C	S	L	Pr	Ev	K
COMPULSORY COURSES															
GmET3O01	Stochastic Systems and Prediction	DT	108	2	1	-	-	Ex	6	-	-	-	-	-	-
GmEA3O02	Fuzzy Functional Analysis	DA	108	2	1	-	-	Ex	6	-	-	-	-	-	-
GmET3O03	Free Frontier Problems	DT	122	1	1	-	-	Ex	6	-	-	-	-	-	-
GmEA3O04	Methodology of Scientific Research	DA	97	1	1	-	-	Ex	5	-	-	-	-	-	-
GmET3O05	Research Project B	DT	47	-	-	-	2	Cn	3	-	-	-	-	-	-
GmEU4O06	Gauge Models	DU	108	-	-	-	-	-	-	2	1	-	-	Ex	6
GmET4O07	Research Project C	DT	122										2	Cn	6
GmET4O08	Internship for Writing the Master Thesis	DT	216	-	-	-	-	-	-	-	-	-	6	Cn	12
	TOTAL			6	4	-	2	-	26	2	1	-	8	-	24
ELECTIVE COURSES															
	Package 1														
GmEU3A11	Dynamic Systems and Optimal Control	DU	72	1	-	1	-	Ex	4	-	-	-	-	-	-
GmEU3A12	Financial Mathematical Models	DU	72	1	-	1	-	Ex	4	-	-	-	-	-	-
	Package 2														
GmEA4A21	Non-Linear Optimization	DA	108	-	-	-	-	-	-	2	1	-	-	Ex	6
GmEA4A22	Special Chapters of Complex Analysis	DA	108	-	-	-	-	-	-	2	1	-	-	Ex	6
	TOTAL			1	-	1	-	-	4	2	1	-	-	-	6
TOTAL ELECTIVE COURSES				7	4	1	2	-	30	4	2	-	8	-	30
FACULTATIVE COURSES															
GmEA3F09	Pedagogical practice in pre-university and university education	DA	83	-	3	-	-	C	5	-	-	-	-	-	-
GmEA3F10	Intercultural Education	DA	83	1	2	-	-	Ex	5	-	-	-	-	-	-
GmEA4F11	Final Assessment: Level II	DA	-	-	-	-	-	-	-	-	-	-	-	Ex	5

Activity	Evaluation	Credits
Final exam for the Master's degree	Exam	10

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