

COURSE GUIDE – short form

Academic year 2014-2015

Course name ¹	Numerical Calculus in Engineering- FEM, NCE-FEM					Course code	MTC.314. DO. DID-1		
Course type ²	DID	Category ³	DO	Year of study	3	Semester	1	Number of credit points	3

Faculty	Mechanical Engineering	Number of teaching and learning hours ⁴						
Field	IA + IM + MR	Total	L	T	LB	P	IS	
Specialization	AR, ISPA, SET, MAIA, MCT, ROB	122	28	-	14	-	80	

Pre-requisites from the curriculum ⁵	Compulsory	-
	Recommended	Strength of Materials I + II

General objective ⁶	NCE-FEM is to develop general or professional skills using the Finite Element Analysis, FEA, in Mechanical Engineering, undergraduate studies appropriate level.
Specific objectives ⁷	<ul style="list-style-type: none"> Knowledge of the information sources, the work stages, the practice of using a professional software package for FEA.
Course description ⁸	I. Introductory elements. II. Basics of Deformable body mechanics used FEA. Elasticity. Plasticity. Nonlinearity. III. Basics of FEA. Evaluation of strains and stresses.

Assessment			Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class test along the semester		Week 11-12	50%
	Activity during tutorials/laboratory works/projects/practical work		Week 1-10	25%
	Assignments		-	-
Final assessment	Final assessment form ¹¹	Colloquium	Week 13-14	25%
	Examination procedures and conditions: 1 Oral answer ; percent of the final grade: 10% 2 Practical demonstration : percent of the final grade: 15%			

Course organizer	Assoc. Prof. Dr. Eng. Mihail Aignatoaie	
Teaching assistants	Assoc. Prof. Dr. Eng. Mihail Aignatoaie	

¹Course name from the curriculum

² DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

³ DI – imposed, DO – optional, DL – facultative (from the curriculum)

⁴ Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

⁵ According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶ According to 7.1 from the Course guide – extended form

⁷ According to 7.2 from the Course guide – extended form

⁸ Short description of the course, according to point 8 from the Course guide – extended form

⁹ For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰ A minimum grade might be imposed for some assessment stages

¹¹ Exam or colloquium