## Transilvania University of Braşov, Romania

## Study program: Simulation and Testing in Mechanical Engineering

Faculty: Mechanical Engineering

Study period: 2 years (master)

Academic year structure: 2 semesters (14 weeks per semester)

Examination sessions (two): winter session (January/February) summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

## 1 Year

No.	Course	Code	1 Semester						2 <sup>nd</sup> Semester				
crt.			С	S	L	Р	Cred	С	S	L	Р	Cred	
01	Advanced Design Elements (CAD)	CAD	1		2		5						
02	Analysis of Mechanical Structures	ASM	2			2	5						
03	C++ Programming for Engineering Applications I		1		2		5						
04	Experimental Mechanics	ME	2		1		5						
05	Ethics and Academic Integrity	EIA	1				1						
06	Control of Dynamic Systems	CSD	1		1		5						
07	Practice for design / research					12	4						
08	Multibody Systems I							2		2		5	
09	Hybrid Engineering							1		2		5	
10	C++ Programming for Engineering Applications II							1		2		5	
11	Practice for design / research										12	5	
12	Lightweight Structures	SU						_			4	_	
	Mechanical Systems for Energy Conversion	SMCE						2			1	5	
13	Fatigue life-based design	PDV											
	Optimization of Thermal Processes and Installations	OPIT						2		1		5	

## 2<sup>nd</sup> Year

No.	Course				4 <sup>th</sup> Semester							
crt.	Course	Code	C	S	L	Р	Cred	C	S	L	Р	Cred
01	Structural Optimisation	OS	2	2			5					
02	Modal Analysis	AM	2		1		5					
03	Multibody systems II	SMC II	1		1		5					
04	Modeling and Simulation of Transfer Phenomena	MSPT 2	2		1	1	6					
	(CFD)	IVISPI										
05	Practice for design / research	PPC III				12	3					
06	Non-linear analysis of deformable solids	ANSD	2		1		_					
	Testing of thermal equipments	TET			'		6					
07	Practice for research	PC									22	20