Transilvania University of Brașov, Romania

Study program: Innovative Manufacturing Engineering

Faculty: Technological Engineering and Industrial Management
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)

1st Year

No. crt.	Course	Code	1st Semester					2nd Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	CNC programming	IFI.01.CNAC	2		1		4					
02	Advanced manufacturing technologies	IFI.01.TNPF	2		2		5					
03	Programming of algorithms for manufacturing engineering	IFI.01.PAUI	1		2		4					
04	Advanced production systems	IFI.01.SAPR	2		1		4					
05	Innovating and inventing in engineering	IFI.01.INIV	1			2	4					
06	Ethics and academic integrity	IFI.01.EISA	1	1			2					
07	Practical activites for design I*	IFI.01.PRCP1				9	7					
	Optional package: Computer Aided Manufacturing Engineering											
08	Advanced software for CAD modelling	IFI.02PSMI						3		1	1	5
09	Modelling and simulation of flexible manufacturing systems	IFI.02.MSSF						2		2		5
10	Innovative cold forming technologies	IFI.02.TIDP						2		1	1	5
11	3D measurement technologies	IFI.02.TEMS						2		2		5
12	Practical activites for design II*	IFI.02.PRCP2									10	10
	Optional package: Advanced Production Systems											
08	Optimization of advanced manufacturing systems	IFI.03.OSAP						2		2		5
09	Robust design of advanced production systems	IFI.03.PRSP						2		2		5
10	Reconfigurable production systems	IFI.03.SPRC						2		2		5
11	Fluidic drive systems	IFI.03.SFLA						3		2		5
12	Practical activites for design II*	IFI.02.PRCP2									10	10

2nd Year

2nd Year

No. crt.	Course	Code	3rd Semester					4th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
	Optional package: Computer Aided Manufacturing Engineering											
01	Advanced CAM systems	IFI.O1.03.SCAM	2		1	1	5					
02	Design systems for innovative manufacturing	IFI.O1.03MPFI	2		2	1	5					
03	CAPP algorithms and programming	IFI.O1.03.APCT	2		2		5					
04	Enterprise data management with ERP	IFI.O1.03.MIRI	2		2		5					
05	Management and resources for research projects	IFI.O1.03.MRPC	2			2	5					
06	Practical activities for research	IFI.03.PRCS				6	5					
	Optional package: Advanced Production Systems											
01	Simulation and modelling of the man-machine system	IFI.03.SMSO	2		2		5					
02	Advanced logistics	IFI.03.SELG	2		2	1	5					
03	Programmable logic controllers	IFI.03.ATPR	2		2		5					
04	Computer aided programming of advanced production systems	IFI.03.PASP	2		2		5					
05	Data acquisition and analysis	IFI.02.ACPD	2		2		5					
06	Practical activities for research	IFI.03.PRCS				6	5					
	Compulsory courses for all packages											
07	Practical activities for design and research	IFI.04.PRPC									13	15
08	Dissertation paper elaboration	IFI.04.DISR									14	15