Transilvania University of Braşov, Romania

Study program: Digital Production Systems

Faculty:	Technological Engineering and Industrial Management
Study period:	4 years (bachelor)
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	Mathematics	AM	2	2			4					
02	Descriptive geometry	GD	2	2			5					
03	Chemistry	CHI	2		1		3					
04	Computer programming and programming languages 1	PCL1	1		2		3					
05	Technical drawing and info- graphics 1	DTI1	2		3		5					
06	Physics	FIZ	2		2		5					
07	Professional integration and development	IDP	1	1			2					
08	Modern languages1a (English)	LM1a	1	1			3					
	Modern languages 1b (French)	LM1b										
09	Physical training 1	EDF1		1			1					
10	Material science and engineering	SIM						3		2		5
11	Linear algebra, analytical and differential geometry	ALGA						2	2			4
12	Mechanics	MEC						2	3			5
13	Technical drawing and info- graphics 2	DTI2						1		4		5
14	Computer programming and programming languages 2	PCL2						2		2		5
15	General economics	ECG						1	1			3
16	Modern languages 2a (English)	LM2a						1	1			3
	Modern languages 2b (French)	LM2b										
17	Physical training 2	EDF2							1			1

2nd Year

No. crt.	Course	Code	3rd Semester					4th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Special mathematics	MS	2	2			4					
02	Strength of materials 1	RM1	2	1	1		5					
03	Mechanisms	MECSM	3		2		6					
04	Numerical methods	MNI	2		2		4					
05	Fluid mechanics and hydraulic equipment	MFH	2		1		3					
06	Electrotechnics and applied electronics	EEA	2		2		5					
07	Modern languages 3a (English)	LM3a	1	1			3					
	Modern languages 3b (French)	LM3b										

No. crt.	Course	Code	C	S	L	P	Cred	C	S	L	P	Cred
8	Physical training 3	EDF3		1			1					
09	Machine elements 1	OM1						2		1	1	4
10	Strength of materials 2	RM2						2	1	1		4
11	Basics of computer aided technological design	BPTAC						2		2		4
12	Basics of Industrial engineering	BI1						2		2		4
13	Materials selection and heat treatments	AMTT						2		1		3
14	Thermotechnics and heat engines	TET						2		1		3
15	Industrial Management	MIN						2	1			2
16	Internship (90 hours/ year)	PRAD										4
17	Modern languages 4a (English)	LM4a						1	1			2
	Modern languages 4b (French)	LM4b										
18	Physical training 4	EDF4							1			1

3rd Year

No. crt.	Course	Code	5th Semester					6th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Machine elements 2	OM2	2		1		4					
02	Machine elements 2- project	POM2				2	3					
03	Ecology and Environment protection	EPM	2	1			4					
04	Finite Element Method	MEF	2		2		3					
05	Tools and accessories for machine-tools	PASA	2		1	1	5					
06	Electrical control and drives	CAE	2		1		3					
07	Quality Management	MC	2		2		4					
08	Fundamentals of machine-tools design and kinematics	BCM						2		1		4
09	Fundamentals of machine-tools design and kinematics - Project	BCM									2	2
10	Unconventional processing equipment	ETN						3		2	1	5
11	Tolerances and dimensional control	TCD						2		2		4
12	Design of metal forming machine-tools	MUPD						2		1	1	4
13	Plan practice (90 hours/year)	PrS										4
14	Design 1	DES 1	2		1	1	4					
	Computer aided technological design I	PTAC I										
15	Design 2	DES 2						2		1	1	4
	Computer aided technological design II	PTAC II										
16	Automated and numerical control machines	MUACN						2		1	1	3
	Modeling and simulation of production systems	MSSP										

4th Year

No. crt.	Course	Code	7th Semester					8th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Machine-tools and production systems design	PMUSP	2		1	2	6					
02	Intelligent kinematic axis control	ACI	2		2		4					
03	Hydraulic and pneumatic control and drives	AHP	3		2	1	6					
04	Sensors and data acquisition	SAD	2		1	1	4					
05	Digital production I	PD 1	2		2		4					
06	Digital production I - Project	PDP 1				1	2					
07	Digital production II	PD 2						2		1	2	4

No	Subject	Code										
08	3D printing equipment	EI3D						3		1	1	3
09	Logistics of industrial systems	LIN						2		1	1	3
10	Internship for diploma project (60 hours)	PPD										10
11	Elaboration diploma project	EPD									6	4
12	Special machine-tools	MUS	2		1	1		4				
	Gearing machines	MD										
13	Reliability and maintenance	FM						2	1			3
	Systems maintenance and repair	IEMU										
14	Flexible manufacturing systems	SFF						3		1	1	3
	Lean Production systems	SLP										