

# Transilvania University of Braşov, Romania

## Study program: Industrial Design

Faculty: Product Design and Environment  
 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)

1<sup>st</sup> Year

No. crt.	Course	Code	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	DIAM01	2	2			5					
02	Chemistry	DICH01	2		1		3					
03	Technical Drawing and Computer Graphics I	DIDT01	2		3		5					
04	Computer Programming and Programming Languages I	DIPC01	1		2		3					
05	Descriptive Geometry	DIGD01	2		1		4					
06	Materials Science and Engineering I	DISM01	3		2		5					
07	Industrial Design Fundamentals I	DIDIO1	1	1			3					
08	Linear Algebra, Analytical and Differential Geometry	DIAGAD						2	2			4
09	General Economy	DIEG02						1	1			2
10	Technical Drawing and Computer Graphics II	DIDT02						1		2		4
11	Computer Programming and Programming Languages II	DIPC02						1		2		4
12	Physics	DIFZ02						2	1	1		4
13	Mechanics	DIMC02						3	2			6
14	Industrial Design Fundamentals II	DIDIO2						1	1			2
15	Artistic Drawing	DIDA02								2		2
16	English or French Language	LE01/LE02 LFO1/LFO2	1	1			2	1	1			2
17	Sports	EF01/EF02		1			1		1			1

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

No. crt.	Course	Code	3 <sup>rd</sup> Semester					4 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Special Mathematics	DIMS03	2	2			4					
02	Mechanisms I	DIME03	3		1	1	6					
03	Strength of Materials	DIRM03	3	2	2		7					
04	Electrotechnics	DIEA03	2		1		3					
05	Numerical Methods in Engineering	DIMN03	2		1		5					
06	Design History and Culture	ICD03	2		1		3					
07	Conceptual Design I	SPDP04						2			1	3
08	Fluid Mechanics	DIMF04						2		1		3
09	Mechanisms II and Machine Elements I	DIOM04						3		2	1	6
10	Technical Drawing and Computer Graphics III	DIM3D						1		3		3
11	Processing Technologies and Cutting Tools	THPL04						2		1		3
12	Industrial Management	DIMIO4						2	1			3
13	Heat Engineering and Thermal Machines	DITMT						2		1		3
14	Practical work 90 hours	DIPr04										4
15	English or French Language	LE03/LE04 LF03/LF04	1	1			2	1	1			2
16	Sports	EF03/EF04		1			1		1			1

## 3<sup>rd</sup> Year

No. crt.	Course	Code	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Machine Elements II	DIOM05	2			2	4					
02	Measurement Techniques and Systems	INGTCD	2		1		3					
03	Materials Science and Engineering II (Recyclable Materials)	DIMR05	2		2		4					
04	Finite Element Analysis	DIMEF5	2		3		5					
05	Computer Aided Modelling of Mechanical Systems	MAS05DI	3		2	1	6					
06	Communication Skills	DIDC05	1	1			3					
07	Colour in Product Design	DICDP6						2		2		4
08	System Theory	DIACC6						3		3		6
09	Aesthetics and Ergonomics	DIEE06						2			2	4
10	Form-giving in design I (Mock-up making)	DIMA06						2		2		4
11	Conceptual Design II	DIDC06						2		1		2

12	Conceptual Design II - project	DIDCP									2	2
13	Practical Work 90 hours	DIPr06										4
14	Product Design for Sustainable Development <i>or</i> Products Reliability	DIDD04/ DIBCo6						2		2		4
15	Creativity and Innovation in Design <i>or</i> Intelligent products and technologies	CID07DI/ DIPTI6	2			2	5					

#### 4<sup>th</sup> Year

No. crt.	Course	Code	7 <sup>th</sup> Semester					8 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Computer Aided Shape Modelling in Design	MAF07DI	2		1	1	5					
02	Embodiment Design	DC07DI	2				2					
03	Embodiment Design - project	DCP07DI				2	2					
04	Design of Mechatronic Products	DIMDP7	2		1	1	5					
05	Form-giving in Design	CFD07DI	1		2		3					
06	Graphic Design	DGDI7	2			1	5					
07	Object Design (10 weeks)	DOB08						2		1		3
08	Innovation Management in Product Design (10 weeks)	DPRESDI						2			1	4
09	Virtual Prototyping (10 weeks)	PV08DI						2		1	2	5
10	Web-design (10 weeks)	CDP08DI						2		1		4
11	Project Management (10 weeks)	MP08DI						1			1	2
12	Detail Design (10 weeks)	PRDET08						1			3	4
13	Project (10 weeks x 2 hours + 4 weeks x 26 hours)	DIPrII									2	4
14	Practical work (10 weeks x 6 hours)	Pr08										2
15	Product Design for Solar Energy Conversion <i>or</i> Image processing	CES07DI / DO07	2		1		4					
16	Eco-design and Products Recycling <i>or</i> Quality in Product Design	RP07DI / WD07	2			1	4					
17	Package Design <i>or</i> Mechanical Testing and Tribology (10 weeks)	DA08 / IMT08						1			2	2