

# Transilvania University of Braşov, Romania

## Study program: Industrial Design (in English)

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	MAT1	2	2			4					
02	Linear Algebra, Analytical and Differential Geometry	MAT2	2	2			4					
03	Technical Drawing and Computer Graphics I	DTIF	2		2		4					
04	Computer Programming and Programming Languages I	IDPC1	2		2		4					
05	Descriptive Geometry	GEOD	2		1		4					
06	Physics	FIZ1	2		2		4					
07	Industrial Design Fundamentals I	IDDI	1	1			3					
08	Materials Science and Engineering I	STMA						4		2		6
09	Special Mathematics	MASP						2	2			4
10	Technical Drawing and Computer Graphics II	DTI2						2		2		4
11	Computer Programming and Programming Languages II	IDPC2						2		2		4
12	Mechanics	MEC1						3	2			6
13	Artistic Drawing	IDDS								2		3
14	French Language	LF01/ LF02	1	1			3	1	1			3
15	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	Chemistry	CHIM	2		1		4					
02	Measurement Techniques and Systems	TOCD	2		2		4					
03	Strength of Materials I	REZ1	2	2	1		5					
04	Electrotechnics and Applied Electronics	ELEA	3		2		5					
05	Industrial Design Fundamentals II	BDP	1		1		3					

06	Technical Drawing and Computer Graphics III	IDMODE	2		2		4					
07	Communication skills	IDCOM	1	1			2					
08	Strength of Materials II	REZ2						3	1	1		4
09	Fluid Mechanics	MEFM						2		2		3
10	Machine Elements I	IDORM1						2		1	1	4
11	Numerical Methods in Engineering	IDMNI						2		2		4
12	Industrial Management	IDMANF						1	1			3
13	Mechanisms I	IDMECA						3		1	2	5
14	Practical work 90 hours	IDPr04										4
15	French Language	LF03/ LF04	1	1			3	1	1			3
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	Manufacturing Technologies and Cutting Tools	IDTASA	2		1		3					
02	Machine Elements II	IDORM2	2	1	1	2	6					
03	Heat Engineering and Thermal Machines	TERM	2		1		3					
04	Materials Science and Engineering II (Special Materials)	IDMS05	1		2		3					
05	Conceptual Design I	IDSPD5	2			2	5					
06	Finite Element Analysis	IDMEF5	2		2		5					
07	Aesthetics and Ergonomics	IDEE05	2			2	5					
08	Computer Aided Shape Modelling in Design	ID MAF06						2		1	1	4
09	Mechanisms II (Computer Aided Modelling)	MAS06						3		2	1	6
10	Form-giving in Design I (Mock-up making)	IDMa06						2		1		3
11	Conceptual Design II	IDDC06						2		1		3
12	Conceptual Design II project	IDDC06P									2	2
13	Practical Work 90 hours	IDPr06										4
14	Study of Colour for Design <i>or</i> Sustainable Product Design	IDCDP6/ IDDD06						2		3		5
15	Design History and Culture <i>or</i> Intelligent Products and Technologies	IDICD6/ IDPTI06						2		1		3

### 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	Actuation, command and control of mechanical systems	IDACC7	3		1	2	7					
02	Embodiment Design	DC07	2				3					
03	Embodiment Design - project	DC07Pr				2	2					
04	Design of Mechatronic Products	IDMDP7	2			2	4					
05	Form-giving in Design II	CFD07	1		2		3					
06	Graphic Design	IDDG7	2			1	3					

07	Creativity and Innovation in Design (10 weeks)	CID08						2		1		3
08	Innovation Management in Product Design (10 weeks)	MINOVID						2			2	3
09	Virtual Prototyping (10 weeks)	PV08						2		1	2	4
10	Web-design (10 weeks)	CDP08						2		1		3
11	Project Management (10 weeks)	MP08						1	1			2
12	Detail Design (10 weeks)	PD08						2			2	4
13	Diploma Project (14 weeks x 4 hours)	IDPrD									4	4
14	Practical work for diploma project (4 weeks x 24 hours)	Pr08										4
15	Product Design for Solar Energy Conversion <i>or</i> Object Design	CES07 /DO07	2		1		4					
16	Eco-design and Products Recycling <i>or</i> Quality in Product Design	RP07/ WD07	2		2		4					
17	Package Design <i>or</i> Mechanical Testing and Tribology (10 weeks)	IDDA08/ IMT08						1		2		3