

Transilvania University of Braşov, Romania

Study program: Aerospace Engineering

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	1 st Semester					2 nd 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	Integration and personal development	IDP	1	1			2					
08	(O1) Modern languages 1a	LM1a	1	1			3					
	(O1) Modern languages 1b	LM1b										
	(O1) Modern languages 1c	LM1c										
	(O1) Modern languages 1d	LM1d										
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	(O2) Modern languages 2a	LM2a						1	1			3
	(O2) Modern languages 2b	LM2b										
	(O2) Modern languages 2c	LM2c										
	(O2) Modern languages 2d	LM2d										
17	Physical training 2	EDF2							1			1

2nd Year

No. crt.	Course	Code	3 rd Semester					4 th 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	2			5					
03	Mechanisms	MEC	3		2		6					
04	Numerical methods in aircraft engineering	MNI	2		2		4					
05	Fluid mechanics and hydraulic equipment	MFH	2		1		3					

06	Electrotechnics and applied electronics	EEA	2		2		5						
07	(O3) Modern languages 3a	LM3a	1	1			3						
	(O3) Modern languages 3b	LM3b											
	(O3) Modern languages 3c	LM3c											
	(O3) Modern languages 3d	LM3d											
08	Physical training	EDF3		1			1						
09	Machine elements 1	OM1						2		1	1		4
10	Strength of materials II	RM2						2	1	1			4
11	3D Modelling	M3D						2		2			4
12	Fundamentals of aerospace engineering	BI1						3	1	2			5
13	Thermotechnics and heat engines	TET						2		1			3
14	Management	MAN						2	1				3
15	Internship (90 hours/ year)	PRA2											4
16	(O4) Modern languages 3a	LM3a						1	1				3
	(O4) Modern languages 3b	LM3b											
	(O4) Modern languages 3c	LM4a											
	(O4) Modern languages 3d	LM4b											
17	Physical training	EDF4							1				1

3rd Year

No. crt.	Course	Code	5 th Semester					6 th Semester						
			C	S	L	P	Cred	C	S	L	P	Cred		
01	Machine elements II	OM2	2		1	1	4							
02	General aviation technologies I	TGA1	2		2	1	6							
03	Fundamentals of aerodynamics	BA	2	1	1		4							
04	Aviation regulations. Legislation.	RAL	1	1			3							
05	Reliability and security of aviation	FSSA	2		2		5							
06	Tolerances and dimensional control	TCD	2		2		5							
07	(O5) Data acquisition and distribution systems	SADD	2		1		3							
08	(O5) Experimental aerodynamics	AEX												
09	Aircrafts mechanics	MA						2						2
10	Aircrafts mechanics – Project	MAP										2		2
11	General aviation technologies II	TGA2						2		1	1			4
12	Fundamentals of aerospace propulsion	BPA						2	1	1				4
13	Quality assurance in aerospace	ACDA						1		1	1			3
14	Internship (90 hours/year)	PRA3												4
15	Design of aerospace structures	CSA						2	2					4
16	CAD/ CAM Systems	CADM						2		1				3
17	Composite materials – technologies and applications	MCTA						2		1	2			4

4th Year

No. crt.	Course	Code	7 th Semester					8 th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Aircrafts and rockets aerodynamics	AAR	2	1	1		5					
02	Calculus and design of aeronautical structures	CPSA	2		1		3					
03	Calculus and design of aeronautical structures– Project	CPSAP				2	2					
04	Technology of aircrafts structure	TSA	2		1	1	4					
05	Fundamentals of aircraft hydraulics and pneumatics	BCHP	2		1		4					
06	(O6) Aircraft design	DA	2		1	1	5					
07	(O6) Operating, repair and airport infrastructure	EIAE										
08	(O7) Helicopters and helicopters systems	ESE	3		2		4					
09	(O7) Finite elements in aerospace engineering	EFIA										
10	(O8) Helicopters repair techniques	TRE	1	1		1	3					
11	(O8) Aerospace structures stability	SSA										
12	Aircraft assembly technology	TAMA						2			1	2
13	Aircraft flight stability and dynamics	SDZ						2			2	3
14	Aeroelasticity and Structural Dynamics	ADS						2	1		1	3
15	On-board and air navigation equipments	EBNA						2	1	1		3
16	(O9) Non-Destructive Testing in Aerospace	MFCA						2		2		2
17	(O9) High speed aerodynamics	AVM										
18	(O10) Maintenance and overhaul of helicopters and aircrafts	EIEA						2	1			3
19	(O10) Computational aerolasticity	AC										
20	Work on diploma project	APIII									6	4
21	Internship for diploma project (60 hrs)	DPRD										10