

COURSE OUTLINE
of the class 2025 - 2027

Transilvania University of Braşov

Master's degree study programme	ENGINEERING AND MANAGEMENT IN AVIATION (in English)
Fundamental field	Engineering sciences
Master's degree study field	Engineering and management
Faculty	Technological engineering and industrial management
Duration of studies	2 years
Form of education:	Full-time (IF)
Type of master's study programme:	Research

YEAR I

No.	Compulsory disciplines	Type*	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Digital marketing in aviation	SC	1		1	1	E	4						
2.	Academic Integrity and Ethics	CC	1	1			V	2						
3.	Composite materials technology for aeronautics	SC	2		1	1	E	5						
4.	Risk management	FC	2		1	1	E	5						
5.	Sustainable Design in Aviation	FC	1		2		E	4						
7.	Practical activities for Research and Design 1	SC **				12	V	10						
Total hours compulsory disciplines			7	1	5	15	4E+2V	30						
			28											

No.	Compulsory disciplines	Type*	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Unmanned Aerial Systems	SC							2		1	1	E	5
2.	Economics and management in aviation	SC							1	2			E	4
3.	Practical activities for research and design 2	SC**										12	V	10
Total hours compulsory disciplines									3	2	1	13	2E+1V	
									19					

No.	Optional disciplines	Type	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
Choose one discipline from each package:														
Optional package 1														
4.	Quality Assurance in Aviation	SC							1		2		E	4
	Quality Control in Aviation	SC												
Optional package 2														
5.	Innovative technologies in aerospace engineering	FC							2		2		E	5
	Process Engineering	FC												
Optional package 3														
6.	Soft Skills (Skills in communication and social competence)	CC							1	1			E	2

	Organizational communication	CC														
Total hours optional disciplines per week									4	1	4			3E		11
											9					
Total											28					30

No.	Facultative disciplines	Type	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Aircraft Manufacture and Maintenance	SC	2		2		E	4						
2.	Aircraft and rotorcraft flight control	SC							2		2		E	4
			2		2		1E		2		2		1E	
Total facultative hours per week														
			4					4	4					4

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Dean

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Director of department

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Coordinator of study programme

YEAR II

No.	Compulsory disciplines	Type*	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Management of Technology and Innovation	SC	1			2	E	4						
2.	Air traffic management	SC	2		1	1	E	5						
3.	Safety Management Systems in Aviation	FC	1		2		E	4						
4.	Practical activities for research and design 3	SC**				12	V	10						
Total hours compulsory disciplines			4		3	15	3E+1V	23						
			22											

No.	Optional disciplines	Type	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
Choose one discipline from each package:														
Optional package 1														
5.	Aviation Logistics	SC	2		2		E	5						
	Airport Management and Ground Services	SC												
Optional package 2														
5.	Human Resource Management in Aviation	SC	1	1			E	2						
	Human Factors in Aviation	SC												
Total hours optional disciplines per week			3	1	2		2E	7						
			6											
Total			28					30						

No.	Compulsory disciplines	Type*	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Engineering and management of aviation systems	FC							2	2			E	4
2.	Practical activity and scientific research for dissertation	SC**										8	V	10
3.	Practical activities for research and design 4	SC**										12	V	10

Total hours compulsory disciplines								2	2		20	1E+2V	24
								24					

No.	Optional disciplines	Type	Semester III						Semester IV					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
Choose one discipline from each package:														
Optional package 1														
5.	Maintenance of aviation systems	SC							1		1		V	3
	Airline management	SC												
Optional package 2														
5.	Project management	SC							1		1		V	3
	Informatics for managers	SC												
Total hours optional disciplines per week									2		2			6
									4			2V		
Total									28				30	

No.	Facultative disciplines	Type	Semester I						Semester II					
			C	S	L	P	Ver.	Cred.	C	S	L	P	Ver.	Cred.
1.	Entrepreneurship and Managerial Innovation	SC	1		1		E	3						
2.	Strategic management in Aviation	SC							2			2	E	4
Total facultative hours per week			1		1				2			2		
			2			1E	3	4			1E	4		

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GENERAL BALANCE SHEET I

No.	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Compulsory	322	182	504	64,3	49	46
2	Optional	126	154	280	35,7	11	14
TOTAL		784				784	60
3	Facultative	8	7			8	7

GENERAL BALANCE SHEET II

No	Discipline	No. of hours		Total		No. of credits	
		Year I	Year II	hours	%	Year I	Year II
1	Fully / partially assisted disciplines	448	336	784	50%	40	30
2	Specialized practice	336	336	672	43%	20	20
3	Practice for drafting the dissertation		112	112	7%		10
TOTAL		784	784	1568		60	60

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