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Study programme "Aviation Transport"

Main attributes	Main attributes						
Title	Aviation Transport						
Identification code	MCA0						
Education classification code	42525						
Level and type	Professional Bachelor (First Cycle) Studies						
Higher education study field	Mechanics and Metal Processing, Heat Power Engineering, Heat Technology, and Mechanical Engineering						
Head of the study field	Marina Čerpinska						
Department responsible	Faculty of Civil and Mechanical Engineering						
Head of the study programme	Andris Rijkuris						
Professional classification code	2144-44; 2152-08						
The type of study programme	Full time						
Language	Latvian, English						
Accreditation	16.11.2022 - 17.11.2028; Accreditation certificate No 2022/30-A						
Volume (credit points)	240.0						
Duration of studies (years)	Full time studies - 4,0						
Degree or/and qualification to be obtained	Professional bachelor degree in aviation transport / aircraft maintenance engineer						
Qualification level to be obtained	The 6th level of European Qualifications Framework (EQF) and Latvian Qualifications Framework (LQF); the 6th level of professional qualification						
Programme prerequisites	Secondary education						
Description							
Abstract	The study programme provides knowledge that complies with the requirements of the state standards of the higher professional education and international documents regulating the air transport related professions. The programme provides the level of knowledge required for performing professional responsibilities defined by the International Civil Aviation Organization (ICAO) in compliance with the European Commission Regulation (EC) No 2042/2003. The scope and contents of the study programme comply with the requirements defined by the European Aviation Safety Agency (EASA), Civil Aviation Agency (CAA) of the Republic of Latvia, Ministry of Education and Science of the Republic of Latvia and with the professional standard: Aircraft Maintenance Engineer (PS - 127) with specializations Aircraft Maintenance (214 - 44) or Aircraft Maintenance Avionics Engineer (2152 - 08)						
Aim	The aim of the study programme is to have a wide profile and high quality Internationally recognized professionals with an integrated second-level professional in the field of education in the aviation transport sector and capable of performing maintenance on aircraft mechanical equipment, in the provision of technical maintenance and repair of mechanical equipment, aggregates and assemblies, as in the provision of technical maintenance and repair of aircraft electronic, radio-electronic, electrical and electromechanical equipment, aggregates and assemblies. The necessary knowledge, skills and competences acquired during the studies enable the aviation transport maintenance engineer to successfully integrate into the international labour market, participate in the execution of scientific research, methodical renovation and maintenance of the infrastructure of the aviation transport sector and the opportunity to continue studies in the master's degree.						
Tasks	The tasks of the study programme: - to ensure the continuous improvement of the quality of the aviation sector by training highly qualified educational specialists for the private and public sectors in the field of aviation transport; - to develop students' ability to plan the tasks of an engineer related to the maintenance of aircraft mechanical equipment or the use, supervision, maintenance of electronic, electrical and electromechanical equipment; - to develop the ability to analyse economic aspects, plan the work to be carried out, prepare mechanical or electronic equipment for operation in accordance with the applicable regulatory instructions; - to develop students' ability to perform professional, innovative and research activities in the field of aviation transport, which would be the basis for reviewing the regulatory documentation of mechanical or avionics equipment and introducing new requirements; - to develop students' abilities to independently acquire, select and analyze information of the aviation transport system and use it, make decisions and solve problems in the field of maintenance and operation of mechanical or electronic equipment of aviation transport; - to promote cooperation between students and academic staff in the development of scientific works and practical implementation of the obtained results in aviation companies, as well as to publish the obtained results; - to stimulate the interest of students and graduates in studies in higher level study programs, lifelong learning, as well as to improve knowledge about innovations in the field and in the field of professional activity.						

Learning outcomes	Graduate of the study programme: - is able to demonstrate mechanics or avionics specific to the aviation industry basic and specialized knowledge and understanding of the most important concepts and regularities of the industry; - is able to explain analytically the information on the system of assemblies and assemblies of mechanical or electronic equipment for aviation, using theoretical knowledge and acquired skills, to make decisions and solve problems in the field of air transport and aircraft technical operation and maintenance; - is able to independently obtain, select, formulate and analytically describe information on mechanical or electronic equipment and make decisions in solving problems in aviation in the transport system sector; - is able to explain and argue the technical aspects of aviation and aircraft maintenance issues of operational mechanical or electronic equipment with both specialists and non-specialists; - is able to structure learning independently, to direct one's own and subordinates' further learning, and professional development in aviation transport and related interdisciplinary fields demonstrate a scientific approach to problem solving, take responsibility and take the initiative to work individually, in a team or to lead other people decisions and solutions to change or uncertain circumstances; - able to show that they understand professional ethics, evaluate the impact of their professional activities on the environment and society and participate in the development of the field of aviation transport system.
Final/state examination procedure, assessment	The professional bachelor's degree in aviation transport and the professional qualification of an aircraft maintenance engineer (specializations - aircraft maintenance mechanical engineer or aircraft maintenance avionics engineer) are awarded after passing the state exams and developing and successfully defending the bachelor's thesis with parts of the project.
Description of the future employment	An aircraft maintenance engineer works in organizations and companies that use aircraft, perform technical operation, maintenance and repair. The maintenance engineer performs tasks related to the use, monitoring and maintenance of aircraft mechanical equipment, performs tasks related to the use, monitoring and maintenance of electronic, electrical and electromechanical equipment of aircraft, prepares electronic and electrical devices for work, and also performs research work in the field of aircraft maintenance and operation.
Special enrollment requirements	English language proficiency equivalent to at least CEFR B2 level.
Opportunity to continue studies	The obtained professional bachelor degree in air transport provides the opportunity to study at the professional or academic master study programmes.

Courses	i		
No	Code	Name	Credit points
Α		Compulsory Study Courses	117.0
A1		General Education Study Courses	20.0
1	SD0002	Innovative Product Development and Entrepreneurship	9.0
2	IV0759	Civil Protection	2.0
3	IV0001	Basics of Labour Protection	1.0
4	DA0055	Environment and Climate Roadmap	2.0
5	BM0529	Introduction to the Aviation Branch	3.0
6	BM0328	Aviation Legislation	3.0
A.2		Field-Specific Theoretical Basic and IT Study Courses	54.0
1	DE0246	Mathematics	14.0
2	BM0549	Supplementary Mathematics (Aviation Transport)	6.0
3	DA0101	Physics	9.0
4	BM0556	Fundamentals of Aerodynamics	3.0
5	BM0329	Fundamentals of Electronic Engineering	3.0
6	BM0330	Fundamentals of Electrical Engineering	6.0
7	BM0327	Technical Mechanics	6.0
8	BM0067	Modern Application Packages for Computers	4.0
9	BM0555	Computer Design of Machines and Mechanisms	3.0
Δ 3	Diff0333	Field-Specific Professional Study Courses	43.0
1	BM0546	Materials and Hardware	6.0
2	BM0185	Measurements in Avionics Devices and Systems	5.0
3	BM0216	Digital Techniques Electronic Instrument Systems	5.0
1	BM0091	Fundamentals of Aircraft Manufacturing Technology	4.0
	BM0553	Flactrical Power Supply Systems of Aircraft	3.0
6	BM0104	Aircraft Electrical Systems	4.0
7	BM0086	Engineering diagnostics of an aircraft	4.0
, ,	BM0530	A aradynamics of Aircrafts	3.0
0	DM0190	Technical Operation of Aircraft and Engines	5.0
10	BM0082	Aircraft Aerodynamics Structures and Systems	
10 P	DIVI0082	Compulsory Blootive Study Courses	4.0
D D1		Eventsol y Elective Study Courses	50.0
DI		Technical anaration of aircraft	50.0
1	DM0520	Machanica of Airframas (Study Draigat)	30.0
2	DM0544	Aircraft and Engine Structure and Strength (Study Project)	2.0
2	DM0547	Aircraft and Engine Structure and Strength (Study Project)	3.0
3	BM0547	Aircrait and Powerplant Maintenance (Study Project)	3.0
4	DM0190	Theorem of Aircraft Enginee	5.0
5	BM0180	Structure and Strength of Aviation Con Turking Engines	5.0
0	BM0558	Structure and Strength of Avlation Gas Turbine Engines	6.0
/	BM0202	Aircraft Aviation and Radioelectronic Equipment	5.0
8	BM0541	Aircraft Strength	6.0
9	BM0531	Pluid and Gas Systems of Alferan	3.0
10	BM0534	Propener	3.0
11	DIVI0342	A arabudramashanias	3.0
12	BM0080	Aeronydromecnanics	4.0
13	BM0533	Visition and Ensuring of Aircraft Operation	3.0
14	BM0946		6.0
1	D10554	Technical operation of aircraft electronic equipment - avionics	
	BIVI0554	Aircraft Electronic Instrument Systems (Study Project)	3.0
2	BM0559	Aircrait Electrical and Power Supply Systems (Study Project)	3.0
3	BM0543	I ne Technical Maintenance of the Aircraft Electrical Devices (Study Project)	3.0
4	BM0537	Antennae and Propagation of Kadio waves	3.0
5	BM0557	Basics of Aviation Devices and Systems	3.0
6	BM0545	Aviation Communication Systems and Nets	3.0
	BM0532		3.0
8	BM0548	Special Chapters of Electronic Engineering	3.0
9	BM0192	Aircraft Automatic Control Systems	5.0
10	BM0220	Aircraft Kadio Location Systems	5.0
11	BM0087	Aircraft Radio Navigation Systems	4.0

12	BM0536	Radio Transmitters and Radio Receivers	6.0
13	BM0538	Fundamentals of Communication Systems	3.0
14	BM0552	Global Satellite Navigation Systems	3.0
B2		Humanities and Social Sciences Study Courses	12.0
1	BM0311	Aviation Technical English	6.0
2	BM0550	Human Factor	3.0
3	BM0319	Economics of Aviation Transport	3.0
4	DE0337	The English Language	3.0
5	DE0384	Basic Ethics	3.0
6	DE0260	Basics of Communication	3.0
7	DE0386	Social Psychology	3.0
С		Free Elective Study Courses	9.0
D		Practical Placement	34.0
1	BM0078	Practical Placement (in mechanics)	34.0
2	BM0105	Practical Placement (in avionics)	34.0
Е		Final Examination	18.0
1	BM0540	Bachelor Thesis Including Project	18.0
2	BM0531	Bachelor Thesis Including Project	18.0