Estonian Aviation Academy

COMMERCIAL AIR TRANSPORT PILOT

CURRICULUM

Curriculum version: 2024/2025

GENERAL INFORMATION

Name of Curriculum	Commercial Air Transport Pilot
Level	514 professional higher education
Study format	Full-time
Higher educational institution	Estonian Aviation Academy
Credits total	180 ECTS
Nominal duration of studies	3 years
Group of curricula	Transportation services
Code of curriculum in EEIS	223303
Language of instruction	English
Other languages to achieve learning outcomes	N/A
Date of registering the curriculum in EEIS	19.05.2021
Date of approval of present curriculum	27.03.2024
Specialities and opportunities for specialisation	Main specialities: 1) Aeroplane Commercial Pilot Speciality Training (72 ECTS) 2) Helicopter Commercial Pilot Speciality Training (72 ECTS) 3) Aeroplane Multi-crew Pilot Speciality Training (72 ECTS)
General objectives	The goal of the curriculum is to prepare pilots, whose qualification meets the international aviation requirements and who would have an aviation personnel licence to work in commercial air transport. The graduates have knowledge of aviation enterprise management and a broad view of aviation generally.
Learning outcomes	The student having passed the curriculum of Commercial Air Transport Pilot: 1) has an awareness of main concepts related to aviation, the principles of aviation management, international economy and developments in international aviation; 2) understands the interrelations between the aviation organisations and management processes; 3) is able to use aviation-specific information and communication technologies; 4) has the necessary communication skills, knows the principles of effective management and teamwork and applies these according to the situation, is aware of the cultural differences and is prepared to work in an international work environment; 5) is familiar with the principles of aviation safety and conformity assessment, applies these in professional practice and has an advanced sense of responsibility regarding the profession; 6) has theoretical knowledge at the required level for an Airline Transport Pilot License (ATPL); 7) has primary practical flight experience at the level required for an Airline Transport Pilot Licence (ATPL) in compliance with Commission Regulation (EU) No 1178/2011;

	8) explains orally or in written form speciality related problems and participates in speciality related discussions; 9) is able to plan research, format as required and present its results; 10) is prepared to work in the aviation sector and feels the need to constantly improve his/her knowledge and skills.
Modules and subjects of curriculum	Annex 1
Admission requirements	1) Secondary education or equivalent qualification; 2) Proficiency in the English language corresponding at least to language proficiency level B2 as defined in the Common European Framework of Reference for Languages (CEFR); 3) Other conditions set out in the admission rules.
Brief description of the curriculum structure	The curriculum consists of the following modules: 1. Fundamentals of Aviation (15 ECTS) 2. Aviation Management Module (27 ECTS) 3. Basic Professional Training Module (48 ECTS) 4. Speciality training modules: a. Aeroplane Commercial Pilot Speciality Training (72 ECTS) b. Helicopter Commercial Pilot Speciality Training (72 ECTS) c. Aeroplane Multi-crew Pilot Speciality Training (72 ECTS) 5. Optional Module (6 ECTS) 6. Research Module (6 ECTS) 7. Final Exam Module (6 ECTS)
Choice and conditions of subjects	Subjects are divided into compulsory (102 ECTS), elective (72 ECTS) and optional (6 ECTS) subjects. Students have to choose and pass one of three speciality training modules (4a, 4b or 4c). Optional subjects may also be taken at other higher educational institutions.
Requirements for completing studies	In order to complete the curriculum, the student must pass the compulsory and optional subject courses and pass the final examination with a positive grade.
Documents issued on graduation	*Diploma* *Diploma Supplement*
Title of diploma or degree obtained on graduation	Bachelor of Science in Engineering (BSc)
Additional information	Curriculum manager eava@eava.ee, +372 744 8100

ANNEX 1. CURRICULUM MODULES AND SUBJECTS

1. Fundamentals of Aviation	**15 ECTS**
Objectives	The module aims to provide an overview of international economics, environment and future technologies in the context of aviation.
Learning outcomes	Student who has passed the module: 1) knows the nature and development trends of international aviation; 2) is familiar with the basics of theory of international economics and the factors influencing international aviation; 3) understands the importance of sustainability and considers them when making management decisions; 4) explains the links between global change and aviation; 5) understands the concept of unmanned aviation and U-space, their main applications and applicable legislation.

Subject code	**Subject**	**Credit, ECTS**	**Semester**
CAM.118	Introduction to Air Transport Systems	6	1
CAM.106	International Economics	3	1
CAM.129	Innovation and Future Technologies in Aviation	6	2

2. Aviation Management	**27 ECTS**
Objectives	The module aims to provide an understanding of aviation organisations' management and interrelations between aviation organisations, as well as an ability to use respective knowledge in practice.
Learning outcomes	Student who has passed the module: 1) knows different aspects of the air transport organisation management processes and is able to use them in practical activities; 2) knows the theoretical foundations of operating air transport organisations and is able to define their strategic goals; 3) optimises and analyses the activities of air transport organisations; 4) is familiar with airline operation and planning principles, and can plan the use of resources; 5) has a systematic overview of the structure, management and planning aspects of airport and ground operations management; 6) knows the principles of safety and compliance and understands its importance and part in the management system.

Subject code	**Subject**	**Credit, ECTS**	**Semester**
AM.069	Operations Management in Air Transport	6	1
CAM.126	Flight Operations Management	6	1
CAM.141	Airport Operations	3	1
CAM.104	Basics of Safety and Compliance Management	3	1
CAM.142	Ground Operations Management	3	2
CAM.127	Airline Network Planning	6	2

3. Basic Professional Pilot Training	48 ECTS
Objectives	The aim of the module is to provide basic professional knowledge and skills necessary for the speciality training.
Learning outcomes	Student who has passed the module: 1) has a basic understanding of valid international aviation law and is able to apply it in his/her work; 2) has basic knowledge and practical skills for calculating mass and balance; 3) understands the links between the human factor and flight safety; 4) knows the basics of aviation meteorology and is able to use aviation meteorological data in his/her work; 5) is able to use radiocommunications in normal and emergency situations and is familiar with the relevant procedures and phraseology; 6) has knowledge of air navigation and is able to apply it in the preparation and execution of flights; 7) understands the professional responsibilities of a pilot.

Subject code	Subject	Credit, ECTS	Semester
PIL.114	Air Law	5	2-4
PIL.115	Flight Planning and Monitoring	6	2-4
PIL.116	Human Performance and Limitations	5	2-4
PIL.117	Meteorology	9	2-4
PIL.118	Navigation	15	2-4
PIL.119	Communication	8	2-4

4a. Aeroplane Commercial Pilot Speciality Training	72 ECTS
Objectives	The aim of the module is to provide the professional knowledge and skills required for the commercial airplane pilot in accordance with the requirements of Commission Regulation (EU) No 1178/2011.
Learning outcomes	Student, who has passed the module: 1) has theoretical knowledge at the level required of the aeroplane airline transport pilot; 2) can pilot a multi-engine aeroplane in accordance with visual and instrument flight rules; 3) has basic knowledge and practical skills to function in a multi-pilot aeroplane crew.

Subject code	Subject	Credit, ECTS	Semester
PIL.120	Aircraft General Knowledge - A	11	3-4
PIL.121	Performance - A	3	3-4
PIL.122	Operational Procedures - A	4	3-4
PIL.123	Principles of Flight - A	6	3-4
PIL.124	MCC - A	5	4
PIL.125	ATPL Theoretical knowledge exams - A	3	5
PIL.126	Flying Training - A	40	5-6

4b. Helicopter Commercial Pilot Speciality Training	72 ECTS
Objectives	The aim of the module is to provide the professional knowledge and skills required for the commercial helicopter pilot in accordance with the requirements of Commission Regulation (EU) No 1178/2011.
Learning outcomes	Student, who has passed the module: 1) has theoretical knowledge at the level required of the helicopter airline transport pilot; 2) can pilot a single-engine helicopter in accordance with visual flight rules; 3) has basic knowledge and practical skills to function as pilot in a multi-pilot helicopter crew.

Subject code	Subject	Credit, ECTS	Semester
PIL.127	Aircraft General Knowledge - H	11	3-4
PIL.128	Performance - H	3	3-4
PIL.129	Operational Procedures - H	4	3-4
PIL.130	Principles of Flight - H	6	3-4
PIL.131	MCC - H	5	4
PIL.132	CPL Theoretical knowledge exams - H	3	5
PIL.133	Flying Training - H	40	5-6

4c. Aeroplane Multi-Crew Pilot Speciality Training	72 ECTS
Objectives	The aim of the module is to provide the professional knowledge and skills required for co-piloting multi-pilot turbine airplanes in accordance with the requirements of Commission Regulation (EU) No 1178/2011.
Learning outcomes	Student, who has passed the module: 1) has theoretical knowledge at the level required of the aeroplane airline transport pilot; 2) can function as co-pilot in a multi-pilot turbine-powered multi-engine aeroplane to be operated in accordance with visual and instrumental flight rules.

Subject code	Subject	Credit, ECTS	Semester
PIL.120	Aircraft General Knowledge - A	11	3-4
PIL.121	Performance - A	3	3-4
PIL.122	Operational Procedures - A	4	3-4
PIL.123	Principles of Flight - A	6	3-4
PIL.125	ATPL Theoretical knowledge exams - A	3	5
PIL.134	Flying Training - A	45	5-6

5. Optional courses	6 ECTS
Objectives	The aim of the module is to improve the professional knowledge and skills in the field related to the curriculum, as well as more broadly.
Learning outcomes	Knowledge and skills according to the selected subjects.

6. Research project	**6 ECTS**
Objectives	The aim of the module is to provide knowledge and skills for planning research, formatting it based on set requirements and presenting research results.
Learning outcomes	Student, who has passed the module: 1) can formulate the aim of the research and based on it research questions or hypotheses; 2) is able to select relevant literature for his/her research and critically assess selected sources to solve research-related problems; 3) is able to collect data based on the aim of the research and draw conclusions based on it; 4) can compile and format coherent written research text according to the requirements set.

Subject code	**Subject**	**Credit, ECTS**	**Semester**
SD.118	Basics of research and research project	6	5-6

7. Final Exam	**6 ECTS**
Objectives	The aim of the final exam is to assess the student's readiness for professional work and successful continuation of studies in Master's studies.
Learning outcomes	Student who has successfully passed the final exam: 1) has a systematic overview of the pilot's profession and its competencies; 2) links professional theory and practice, and is able to apply this knowledge; 3) recognises interdisciplinary connections and is able to choose a suitable course of action accordingly; 4) can formulate problems related to air transport and airline operations, analyse and evaluate different solutions; 5) analyses and solves management tasks related to his / her field of speciality.

Subject code	**Subject**	**Credit, ECTS**	**Semester**
PIL.136	Final exam	6	6