



<p>Title of module: “Introduction to the aviation business” Programme: “Flight safety and airworthiness” Level: “Masters” – EQF Level 7 ECTS value: 6 credits</p>	
<p>Module summary</p>	<p>The training of competent specialists in the field of flight safety systems is a complex task, requiring the development of a number of skills and competences linking aircraft construction and operations as well as the analysis and monitoring of results achieved. Specialists however have to work within the constraints set by the business aspects of aviation and within a strict regulatory framework.</p> <p>The aim of this module is to provide students with knowledge and understanding of the modern business and regulatory environment allowing them to move on to develop a more deeper understanding of flight safety management systems and their application through lectures and seminars and teaching them to apply this knowledge using practical case studies and problem solving exercises using real data from the field of flight safety management systems.</p>
<p>Relationship of module to other modules</p>	<p>The module «Introduction to the aviation business» is a compulsory part of the masters programme, studied at the beginning of the course. It may, if deemed necessary be delivered in three separate courses – principles of flight, the aviation business and legislation.</p> <p>Pre-requisites: Entry to the module is accepted providing the general requisites for entry to the full programme are met.</p> <p>Co-requisites: None.</p>
<p>Module aims</p>	<p>The aim of this module is to provide students having different cultural backgrounds with a common basic knowledge and understanding of the principles of flight, the aviation business and legislation which are required to allow the student to further his or her studies in the field of flight safety management systems.</p>
<p>Intended learning outcomes</p>	<p>On successful completion of the module, students will be able to:</p> <ol style="list-style-type: none"> 1: resolve typical problems in aerodynamics, propulsion, structure, and systems and understand the role of air traffic control and avionics; 2: interact with design, maintenance, and service engineers operating in civil aviation and pro-actively implement procedures consistent with the flight aviation authority regulations; 3: understand and develop the main elements of a business plan for a company in the aviation sector and apply this knowledge to develop a business plan; 4: conduct studies of the economic impact of safety measures; 5: demonstrate the ability to fulfill the preliminary work to obtain, maintain and operate licenses; 6: understand and communicate national and international regulations in the field of flight safety.
<p>Short description of curriculum content</p>	<p>Introduction to civilian aircraft: The classification of civilian aircraft and their main characteristics;</p> <p>Principles of civilian aircraft design:</p>

	<p>Analysis of load environment and flight envelope, the design principles applied when dealing with aerodynamics, aeronautical engines, aeronautical structures, aeronautical materials, flight mechanics, control systems, and avionics;</p> <p>Civilian aircraft performance: Main methodologies for the analysis of aircraft engineering performance and criteria for aircraft sizing. The numerical methods belonging to the different disciplines are outlined. Performance testing. Stability and control testing.</p> <p>Aircraft safety assessment: Principles and techniques of aircraft safety assessment.</p> <p>Introduction to aviation economics: Basic elements of aviation economics and studies, their relationship to airport handling responsibility, air and land side, route planning, crew, fuelling, maintenance and parts support. security, advertising and promotion, ATC, economic resources, business planning and monetary resources;</p> <p>Airline finances: Introduction to the financial and operative leasing, wet or dry lease, direct purchase, fleet planning and acquisition costs, international air fares and ICAO's policies, public service obligations;</p> <p>Operating licenses: Introduction to operating licenses, interaction between the flight authority and aircraft operator, handling leasing for aeronautical companies, main requirements for the issue of operating licenses.</p> <p>Business economics and impact on safety: Public policy, deregulation and low cost carriers, costs of safety and acceptable levels, economic impact studies.</p> <p>Basics of aviation legislation Understanding the regulation of aviation rights, methods of realizing aviation rights, the hierarchy of aviation legislation, the legal basis for the state regulation of civil aviation activities, the main methods of regulating these activities, the legal regime for the use of air transport, the regulative base determining procedures for the use of air space.</p> <p>The regulation of the management of flight safety Main elements of the aviation-transport system, their legal status, the specifics of the legal regulation of flight safety, the legal regulation of air transport and the activities of aviation organisations, the organization-legal basis of the management of flight safety, modern conceptions of flight safety, assessing the activities of aviation organisations from the point of view of assuring flight safety.</p> <p>Technical regulation of airports and aircraft</p> <p>The regulation of transport security The legal assurance of activities for the prevention of illegal intervention in the activities of civil aviation, an understanding of transport security, aviation security, conceptions for assuring transport safety.</p> <p>International legislation International aviation rights, the legal basis of the operation of international aviation organisations for assuring the safety of air transport, sources and principles of the formation of international aviation legislation, international organisations involved in civil aviation.</p>
<p>Teaching and learning strategy</p>	<p>The module is delivered using a combination of lectures, seminars and guest presentations to cover the main elements of the curriculum in a three week-long blocks followed by guided reading and study, supplemented by seminar-workgroups. Emphasis is placed on using actual case studies and information/data from the aviation sector using the databases and materials from the Flight safety portal.</p> <p>Teaching notes, webinars, reading materials, data-bases for problem solving and other supplementary materials will be available on the Flight safety portal.</p> <p>Students will be expected to spend a total of 216 hours on the module including independent study. As a guide this may involve:</p>

	Scheduled learning and teaching	Lectures	45 hours
		Case studies and practical tasks	30 hours
		Webinars/tutorials	30 hours
	Guided independent study	Guided reading and study	30 hours
		Development of business plan	81 hours
Assessment strategy	<p>Knowledge acquired during lectures will be assessed using short tests at session end. Two practical tasks implemented by individuals will be assessed based on written submissions. At the end of the course, the student will be assessed based on a formal presentation of their results of developing a business plan during which the results achieved and the transversal skills utilized during the project are assessed.</p> <p>Feedback during the module given through group discussion, workshop and tutorial sessions as well as actual assessments to enable the students to develop an awareness of their rate and level of progress, their strengths and weaknesses in the subject area and support students in preparing for their final assessments.</p>		
Map of learning outcomes to assessment strategy	Learning Outcome	Assessment strategy	Percentage weighting
	1: resolve typical problems in aerodynamics, propulsion, structure, and systems and understand the role of air traffic control and avionics	Results of tests after lectures	10%
	2: interact with design, maintenance, and service engineers operating in civil aviation and pro-actively implement procedures consistent with the flight aviation authority regulations;	First coursework – 4000 words	10%
	4: conduct studies of the economic impact of safety measures;	Second coursework – 4000 words	20%
	5: demonstrate the ability to fulfill the preliminary work to obtain, maintain and operate licenses; 6: understand and communicate national and international regulations in the field of flight safety.	Second coursework – 4000 words	20%
	3: understand and develop the main elements of a business plan for a company in the aviation sector and apply this knowledge to develop a business plan;	Formal presentation of their results of business planning exercise	40%
	Achieving a pass requires that at least 50% is achieved in each category and overall 60%.		
Bibliography	<p>Core texts: To be defined</p>		
	<p>Recommended reading: Materials on Flight safety portal.</p>		