



## RTU Course "Theoretical Fundamentals of Flight Safety"

15E01 Aeronautikas tehnoloģiju katedra

### General data

Code	TAE503
Course title	Theoretical Fundamentals of Flight Safety
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Post-graduate Studies
Course type	Professional
Field of study	Transport
Responsible instructor	Šestakovs Vladimirs
Volume of the course: parts and credits points	1 part, 2.0 Credit Points, 3.0 ECTS credits
Language of instruction	LV, EN, RU
Possibility of distance learning	Not planned
Abstract	ICAO global flight safety plan. Air safety global "road map". Requirements for flight safety system. Flight safety performance and criteria. Aircraft technical failure analysis methods. Human factor. Impact of aviation equipment failure on flight safety.
Goals and objectives of the course in terms of competences and skills	The aim is to study flight regulatory legal documents, quantitative evaluation of flight safety. Flight safety performance and criteria. Flight safety adverse environmental impacts reduction methods.
Structure and tasks of independent studies	Study of literature, homeworks on ICAO, EASA, LR CAA flight regulatory documents. Quantitative evaluation of flight safety. Flight safety adverse environmental impacts reduction techniques. Practical work report and presentation.
Recommended literature	1. Kroes M.I. Aircraft Maintenance. Repair. Sixth Edition, New York, 1993, 650p. 2. ICAO konvencija un 1.-18. pielikumi. Dos. 7300. 3. Latvijas civilās aviācijas normatīvie dokumenti. LCAA, Latvijas vēstnesis, 1999- 2001. 4. Šestakovs V. Lidojumu drošība. Gaisa transporta sertifikācija. Rīga, 1997, 85 lpp.
Course prerequisites	Aircraft aerodynamics and design.

### Course outline

Theme	Hours
Air safety in civil aviation. Flight safety in the Latvian air. Specific situations.	6
Aviation accidents. Risk factor reduction methods.	6
Specific situations classification. Identification of specific situations.	6
Quantitative evaluation of flight safety.	6
Practical work.	8

### Learning outcomes and assessment

Learning outcomes	Assessment methods
A student is able to describe and make flight data analysis and processing.	Practical works, homework, exam. Criteria: Ability to carry out flight safety records calculations, flight information analysis.
A student is able to identify and calculate flight safety indicators.	Practical works, homework, exam. Criteria: Ability to determine relative probability of an emergency.

### Study subject structure

Part	CP	ECTS	Hours per Week			Tests		
			Lectures	Practical	Lab.	Test	Exam	Work
1.	2.0	3.0	1.5	0.5	0.0		*	