



## RTU Course "Aircraft Computers and Computer Systems"

15E02 Avionikas katedra

### General data

Code	TAA541
Course title	Aircraft Computers and Computer Systems
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Post-graduate Studies
Course type	Professional
Field of study	Transport
Responsible instructor	Trifonovs-Bogdanovs Pjotrs
Academic staff	Smirnovs Igors
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	Aircraft computer structure scheme and operation. Functioning of the computer control. Aircraft computer systems design and operation in different modes.
Goals and objectives of the course in terms of competences and skills	To acquire aircraft computer and control operation. To acquire aircraft computer systems operating at different modes.
Structure and tasks of independent studies	To independently prepare reports on the theme - aircraft computer chart, operation and control methods. Computer system operating in different modes. Work with special literature. Classes in Aviation Institute's specialized room.
Recommended literature	1. Авиационные цифровые системы контроля и управления. Под ред. Мясникова В. Ленинград. Машиностроение. 1990г. 386 стр. 2. Henderson M. Aircraft instruments. Avionics for technicians. Colorado. Jeppesen Sanderson. 2001g. 212 p. 3. Wasson J. Avionic Systems. Operation and maintenance. Colorado. Jeppesen. Sanderson. 1994g. 318 p. 4. О.Бабич. Обработка информации в навигационных комплексах. Москва. Машиностроение.1992г. 512 стр.
Course prerequisites	Math. Aviation devices and systems.

### Course outline

Theme	Hours
Aircraft avionics computer complex components.	4
Aircraft computer diagram and operation.	4
Program provision.	3
Functional algorithms. Realization of uniqueness.	5
Computer performance control.	4
Aircraft computer system. Computing structure classification.	3
Aircraft computer system typical structure.	4
Aircraft information communication computer tools.	5

### Learning outcomes and assessment

Learning outcomes	Assessment methods
The student knows aircraft computer diagram.	Pract. work: Computer system diagram. Exam.
The student knows aircraft computer control methods.	Pract. work: Computer control methods. Exam.
The student is able to draw conclusions on aircraft computer operation and input data.	Individual work, seminars. Exam.
The student is able to analyse aircraft computer system performance under different conditions.	Individual work, seminars. Exam.

### 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		*	