



RTU Course "The Technical Maintenance of the Aircraft Electrical Devices (Study Project)"

15E02 Avionikas katedra

General data

Code	TAA260
Course title	The Technical Maintenance of the Aircraft Electrical Devices (Study Project)
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Undergraduate 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 electronic equipment error analysis. Scientific development of electronic equipment main service activities. Development of aircraft electronic equipment technical operating procedures.
Goals and objectives of the course in terms of competences and skills	Develop skills to analyze aircraft electronic equipment errors. Build skills to develop electronic equipment technical service activities.
Structure and tasks of independent studies	Independently analyze the aircraft electronic equipment errors. Independently develop the aircraft electronic equipment technical operation procedures. Working with the special literature. Lessons in the Aviation Institute specialized lecture hall.
Recommended literature	1. Tooley M., Wyatt D. Aircraft Electrical and electronic Systems. Butterworth-HEINMANN Ltd, 2008g. 424 lpp. 2. Moir I., Seabridge A., Aircraft Systems. Wiley-Blackwell. 2008. 546 lpp. 3. P. Trifonovs-Bogdanovs. Žiroskopiskās pilotāžas ierīces. RTU. Rīga. 2002g. 102 lpp. 4. Z. Bunžs, S. Miesniece, Bezkontakta komutācijas aparāti. RTU. 2008. g. 308 lpp. 5. Moir I., Seabridge A. Civil Avionics Systems. Wiley-Blackwell. 2006. 396 lpp.
Course prerequisites	Power systems, aviation device systems.

Course outline

Theme	Hours
Aircraft electronic device composition. Basic errors of structure elements.	2
Electronic device error model creation.	3
Electronic device error analysis.	4
Electronic device error reduction measures.	4
Development of electronic equipment technical operation procedures.	6
Instruments of technical operation procedures.	4
Aircraft electronic equipment and error model structure scheme drawings.	2
Drawings of electronic equipment technical service organization charts.	2
Preparation of technical documentation.	5

Learning outcomes and assessment

Learning outcomes	Assessment methods
The student understands the operation of electronic equipment in different modes.	Consultation. Volume and quality control.
The student knows the electronic equipment errors.	Consultation. Volume and quality control.
The student is able to develop algorithms for electronic equipment and structures circuits.	Consultation. Volume and quality control.
The student is able to develop a technical electronic equipment operating procedures.	Consultation. Volume and quality control.
The student is able to find technical operating procedures for instruments.	Consultation. Volume and quality control.

Study subject structure

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