



## RTU Course "Fundamentals of Automation"

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**General data**

Code	DAI241
Course title	Fundamentals of Automation
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Undergraduate Studies
Course type	Academic
Field of study	Computer Science
Responsible instructor	Zigurds Markovičs
Academic staff	Vladimirs Ņikišins Jānis Salenieks Juris Lauznis
Volume of the course: parts and credits points	1 part, 2.0 Credit Points, 3.0 ECTS credits
Language of instruction	LV, EN
Annotation	Structures of automatic control systems, main characteristics, stability and quality. Measurement process of automatic control systems operation. Ways, methods and instruments of measuring. Obtaining methods of control systems equations, transmission functions, time and frequency characteristics. Stability of the system. Analysis of automatic control systems quality. Pulse control. Non - linear control. Simulation of systems. Identification of systems.
Recommended literature	V.Klimavičius. Automātiskā vadība. Rīga, RTU, 2002. M.Brikmans, V.Klimavičius. Optimālās vadības metodes. Lekciju konspekts., Rīga, 1990. J.Osis. Automātiskā vadība un regulēšana. Rīga, Zvaigzne,1969. A. Kaķītis u.c. Sensori un mērīšanas sistēmas. Jelgava, LLU,2008.
Course prerequisites	

**Course outline**

Theme	Hours
	2
	4
	4
	2
	2
	2
	2
	4
	2
	2
	2
	2
	2
	2

**Learning outcomes and assessment**

Learning outcomes	Assessment methods

**Study subject structure**

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