



RTU Course "Basics of Production Automation"

15326 Mašīnbūvniecības un industriālā dizaina katedra

General data

Code	MRA312
Course title	Basics of Production Automation
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Undergraduate Studies
Course type	Professional
Field of study	Mechanics, Mechanical Engineering, Machine Building
Responsible instructor	Kaņeps Jānis
Volume of the course: parts and credits points	1 part, 3.0 Credit Points, 4.5 ECTS credits
Language of instruction	LV
Possibility of distance learning	Not planned
Maximum auditorium capacity	30
Maximum number of students per semester	30
Abstract	Basic processes of industrial production - designing, manufacturing and distribution (material supply and delivery) of products, characteristic features of automation of basic processes. Computer aided design, ensuring CAD, CAE, computer aided manufacturing - CNC systems and their application, basic processes of product manufacturing and their automation, robotization, product distribution - computerized solution to logistic problems. Structure of automated production enterprises and specific features of their functioning.
Goals and objectives of the course in terms of competences and skills	
Structure and tasks of independent studies	
Recommended literature	1. A.Šulcs: Datortehnika un ražošanas automatizācija, - RTU-SWH, Rīga, 1995 2. K.Muceniks: Salikšanas automātu un līniju projektēšanas pamati, - Zinātne, Rīga, 1981, 3. Wild Ray: Essentials of production and operational management, 3rd edition, Cassell Educational Ltd., 1992, 4. G.Boothroyd: Assembly automation and product design, - Marcel Dekker, New York, 1992, 5. Bebbhabib B.: Manufacturing: Design, production, automation, and integration, Marcel Dekker, New York 2003.
Course prerequisites	

Course outline

Theme	Hours
	2
	4
	2
	2
	2
	2
	4
	6
	4
	2
	6
	4
	2
	4
	2
	4
	2

Learning outcomes and assessment

Learning outcomes	Assessment methods

Study subject structure

Part	CP	ECTS	Hours per Week			Tests		
			Lectures	Practical	Lab.	Test	Exam	Work
1.	3.0	4.5	2.0	1.0	0.0	*		