

## RTU Course "Computer Networks"

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**General data**

Code	DST704
Course title	Computer Networks
Course status in the programme	Compulsory/Courses of Limited Choice
Responsible instructor	Valerijs Zagurskis
Academic staff	Anatolijs Morozovs
Volume of the course: parts and credits points	1 part, 2.0 Credit Points, 3.0 ECTS credits
Language of instruction	LV, EN
Annotation	Computer networks and computer technology. ISO Open System Interconnection model. Global networks. Local networks and their communication. Organization of network working places, communication channels, modems. Basic network services. Transport-network (TCP/IP) protocol stack and virtual private networks (VPN).
Goals and objectives of the course in terms of competences and skills	To train specialists, who can implement, design and analyze computer networks and associated technologies for real processes control in the industry and society progress directions.
Structure and tasks of independent studies	Before lecture it is necessary to repeat previous lecture materials for successful understanding of given material.
Recommended literature	1. V.Zagurskis.RTU, Datorzinātnes un informācijas tehnoloģijas fakultāte (DITF), Datoru tīklu un sistēmu katedra (DSTK) Mācību un pārbaudīšanas līdzekļi, Datoru tīkli, 2005. ESF projekts Nr.0125/VPDI/ESF/PIAA/04/APK3.3.3.3./0062/0007.
Course prerequisites	

**Course contents**

Content	Full- and part-time intramural studies		Part time extramural studies	
	Contact Hours	Indep. work	Contact Hours	Indep. work
Introduction to course	3	0	0	0
Internetworking basics	3	0	0	0
Local area network protocols	3	0	0	0
Global network technologies	3	0	0	0
Open System Interconnection (OSI) model and DECnet	3	0	0	0
TCP/IP protocol stack	4	0	0	0
Network management	3	0	0	0
Client -server network technology	3	0	0	0
Wireless networks	3	0	0	0
Mobile and grid networks	4	0	0	0
<b>Total:</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Learning outcomes and assessment**

Learning outcomes	Assessment methods
To be able to discuss the basic principles of the computer networks, their main advantages and limitations. Have the knowledge of network infrastructure elements and technology life cycles.	Successfully passed exam, which contains theoretical and situation analyzing parts
To be able to openly discuss and argument his/her own choices in use or not use of computer network technology based on business needs and processes.	Successfully passed exam, which contains theoretical and situation analyzing parts

**Study subject structure**

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