RTU Course "Computer Networks"

12216 Datoru tīklu un sistēmu teholoģijas katedra

General data

Code	DST704
Course title	Computer Networks
Course status in the programme	Compulsory/Courses of Limited Choice
Course level	Post-graduate Studies
Course type	Academic
Field of study	Computer Science
Responsible instructor	Zagurskis Valerijs
Academic staff	Morozovs Anatolijs
Volume of the course: parts and credits points	1 part, 2.0 Credit Points, 3.0 ECTS credits
Language of instruction	LV, EN
Possibility of distance learning	Not planned
Maximum auditorium capacity	25
Maximum number of students per semester	25
Abstract	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 (DTSTK) Mācību un pārbaudīšanas līdzekļi, Datoru tīkli, 2005. ESF projekts Nr.0125/VPDI/ESF/PIAA/04/APK3.3.3.3./0062/0007.
Course prerequisites	
Courses acquired before	

Course outline

Theme	Hours
Introduction to course	3
Internetworking basics	3
Local area network protocols	3
Global network technologies	3
Open System Interconnection (OSI) model and DECnet	3
TCP/IP protocol stack	4
Network management	3
Client -server network technology	3
Wireless networks	3
Mobile and grid networks	4

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	Semester			CP	Hours per Week			Tests		
	Autumn	Spring	Summer		Lectures	Practical	Lab.	Test	Exam	Work
1.	*		*	2.0	2.0	0.0	0.0		*	