



## RTU Course "Network Software"

12308 Programmatūras inženierijas katedra

### General data

Code	DIP415
Course title	Network Software
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	Latiševa Eleonora
Volume of the course: parts and credits points	1 part, 4.0 Credit Points, 6.0 ECTS credits
Language of instruction	LV
Possibility of distance learning	Not planned
Abstract	The basics of network architecture and development of computer network software using different programming approaches are discussed within the study course.
Goals and objectives of the course in terms of competences and skills	To obtain knowledge about the basics of network architecture and development of computer network software using different programming approaches. To obtain knowledge about development of Web and J2EE applications.
Structure and tasks of independent studies	Laboratory works in computer class, developing Java applets and different kinds of multithreaded client-server architecture software, work with literature.
Recommended literature	<ol style="list-style-type: none"> <li>1. Джеймс Е. Гаскин NetWare 5. Полное руководство: В 2 т.: Пер. с англ. – К.:БЕК+, М.: ЭНТРОП, СПб.: Корона-Принт, 2000. – Т.1. – 736 с.</li> <li>2. Джеймс Е. Гаскин NetWare5. Полное руководство: В 2 т.: Пер. с англ. – К.:БЕК+, М.: ЭНТРОП, СПб.: Корона-Принт, 2000. – Т.2. – 656 с.</li> <li>3. Робачевский А. М. Операционная система UNIX. – СПб.:БХВ-Петербург, 2002. – 528 с.:ил.</li> <li>4. Буди Курняван. Создание Web – приложений на языке Java с помощью сервлетов, JSP и EJB. Издательство “ЛОРИ”, 2005. – 880 с.</li> <li>5. Браун К., Крейг Г., Хестер Г., Стайнаур Р., Питт В. Д., Витцел М., Амсен Дж., Джекоб П. М., Берг Д. Создание корпоративных Java – приложений для IBM WebSphere / Пер. с англ. – М.: КУДИЦ – ОБРАЗ, 2005. – 860 с.</li> <li>6. Монсон-Хейфел Р. Enterprise JavaBeans, 3-е издание. Пер. с англ. СПб: Символ-Плюс, 2002.- 672с.</li> <li>7. Аллен Поль Р. и др. J2EE. Разработка бизнес – приложений: Пер. с англ. –СПб.: ООО “ДиасофтЮП”, 2002. –736 с.</li> </ol>
Course prerequisites	Operating systems, Networks

### Course outline

Theme	Hours
Introduction: global and local networks, networks architecture and management.	2
Local networks based on Novell NetWare.	6
Software in local networks based on Windows NT/XP, UNIX, LINUX.	6
Foundations of Internet.	6
Web page implementation possibilities.	4
Technologies of shared software implementation.	6
Application of Web technologies in DB management systems.	6
Network security foundations.	4
Application of J2EE technology for networks software implementation.	8
Laboratory works	16

### Learning outcomes and assessment

Learning outcomes	Assessment methods
Is able to develop shared type software using different programming languages.	Practical laboratory work, homework, and test. Exam.
Is able to develop J2EE technology for software implementation.	Practical laboratory work, homework, and test. Exam.
Is able to develop software in local networks based on Windows NT/XP.	Practical laboratory work, homework, and test. Exam.
Is able to develop software in local networks based on UNIX.	Practical laboratory work, homework, and test. Exam.
Is able to develop software in local networks based on Linux.	Practical laboratory work, homework, and test. Exam.

**Study subject structure**

Part	CP	ECTS	Hours per Week			Tests		
			Lectures	Practical	Lab.	Test	Exam	Work
1.	4.0	6.0	3.0	0.0	1.0		*	