



RTU Course "Enterprise Information Technology Architecture, Applications and Integration "

12113 Vadības informācijas tehnoloģijas katedra

General data

Code	DOP700
Course title	Enterprise Information Technology Architecture, Applications and Integration
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	Jānis Grabis
Volume of the course: parts and credits points	1 part, 4.0 Credit Points, 6.0 ECTS credits
Language of instruction	LV, EN
Possibility of distance learning	Not planned
Abstract	Commercially available enterprise information systems are often used in implementation and automation of enterprise business processes. The objective of the course is to master main principles of enterprise information systems, their deployment and modification. Main topics covered in the course are business process modeling, application of ERP, workflow and other enterprise systems in process automation, modification and deployment of enterprise information systems, integration of enterprise information systems and adoption service-oriented computing in enterprise systems. Technologies for the modification of enterprise systems are explored in laboratories.
Goals and objectives of the course in terms of competences and skills	To learn various alternatives of using enterprise applications for automation of business processes in the framework of overall enterprise information technology architecture
Structure and tasks of independent studies	There are two main assignments: 1. Readings – students search for scientific papers devoted to subject areas given by an instructor and write synopsis of these papers. 2. Business process automation proposal – students find the most appropriate solution for automating a selected business process automation problem, perform fit-gap analysis and design necessary modifications. Methods for completing the assignment are discussed during lectures, students submit intermediate deliverables during the course and present their solution at the end of the course.
Recommended literature	Marianne Bradford (2008), Modern ERP: Select, Implement and Use Today's Advanced Business Systems, Lulu. Mary Sumner (2004), Enterprise Resource Planning, Prentice Hall. Curran, T.A., Ladd, A. (2000), SAP R/3 Business Blueprint, Prentice Hall PTR.
Course prerequisites	Database systems

Course outline

Theme	Hours
Introduction: Enterprise value chain and enterprise applications	4
Enterprise Information Technology architecture and COTS applications	4
Enterprise Resource Planning (ERP) Systems: Introduction	6
Implementation of ERP systems	4
Methodologies of implementation of ERP systems	4
Modification of ERP systems	8
Vendors of ERP systems	4
Configuration of enterprise applications	4
Enterprise portal	4
Workflow systems	8
Composite applications	4
Enterprise integration and integration standards	4
Current trends in enterprise Information technology architecture and applications	4
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Learning outcomes and assessment

Learning outcomes	Assessment methods
To know main functional capabilities of enterprise applications and their application areas	Test
Ability to select the most appropriate solution for business process automation	Coursework and examination
To understand implementation life-cycle of enterprise applications and main implementation activities	Examination
Ability to document implementation of enterprise applications	Coursework

Ability to configure enterprise applications and to modify user interface, reports and elements of enterprise portal	Laboratory work
Ability to orchestrate executable business processes and knowledge of integration standards	Laboratory work

Study subject structure

Part	CP	ECTS	Hours per Week			Tests		
			Lectures	Practical	Lab.	Test	Exam	Work
1.	4.0	6.0	2.0	1.0	1.0		*	