

Dalyko sando aprašas

Dalyko sando kodas <i>(Course unit code)</i>	
Dalyko sando pavadinimas <i>(Course unit title)</i>	Computer Networks - Selected Chapters
Dėstytojo (-jų) pedagoginis vardas, mokslo laipsnis, vardas ir pavardė <i>(Name and title of lecturer)</i>	Adomas Svirskas, Researcher
Katedra, centras	Informatikos katedra
Fakultetas, padalinys	Matematikos ir informatikos fakultetas
Dalyko sando lygis <i>(Level of course)</i>	pirmosios pakopos
Semestras <i>(Semester)</i>	rudens (7)
ECTS kreditai <i>(ECTS credits)</i>	4,5
VU kreditai <i>(VU credits)</i>	3
Auditorinės valandos	viso dalyko 64
	Paskaitų 32
	seminarų
	pratybų
	laboratorinių darbų 32
	Konsultacijų
Reikalavimai <i>(Prerequisites)</i>	The prerequisites are: <ul style="list-style-type: none"> • Objektinis Programavimas Java (OBPR2114) • Objektinis Programavimas C++ (OBPR2214) • Kompiuterių tinklų architektūra (KOMT2112) • Kompiuterių tinklų programavimas (KTPR3124)
Dėstomoji kalba	English

<i>(Language of instruction)</i>	
Dalyko sandotikslai ir numatomi gebėjimai <i>(Objectives and learning outcomes)</i>	<p>Objectives and learning outcomes:</p> <ul style="list-style-type: none"> • Understanding of the principles of Service Oriented Architecture (SOA) and its place in the context of business and IT landscape • Understanding of the architectural principles of Web Services and the interrelationships between various WS specifications • Understanding of the Grid architectural principles • Knowledge of the interrelation between the Grid and Web Services • Ability to apply th knowledge of SOA, Web Services and Grid to provide business-oriented IT solutions
Dalyko sandoturinis <i>(Course unit content)</i>	<ul style="list-style-type: none"> • The basics and the key principles of SOA and their application for E-business • Integrated SOA models unifying business and IT aspects • Web Services a a SOA realization: the origins, need, the key specifications: SOAP, WSDL, UDDI • Web Services extended architecture, WS-* specifications, their interrelationships and profiles • Web Services layered architecture – from messaging to Business Process Management • The most important and most completely implemented WS-* specifications: WS-Addressing, WS-Policy, WS-ReliableMessaging etc. • Transaction support in Web Services • Web Services management • Web Services governance. Importance of the Registry • Web Services and security (WS-Security, WS-Trust) • Web Services and B2B E-business – Choreography and Orchestration (WS-CDL and WS-BPEL), Business Process Management using Web Services • Asynchronous event-driven communication, Enterprise Service Bus • Web Services interoperability, WS-I initiative (http://www.ws-i.org/), aspects of standartisation and the main standards bodies (e.g. W3C) • Web Services as the main instrument for J2EE and .NET integration • Web Services platform implementations – Apache, Systinet, BEA, IBM etc. • Grid architectural principles, origins, development • The modern Grid - Open Grid Services Architecture (OGSA), symbiosis between Grid and Web Services • Globus Toolkit GT4 http://www.globustoolkit.org/toolkit/about.html
Pagrindinės literatūros sąrašas <i>(Reading list)</i>	<ul style="list-style-type: none"> • Enterprise SOA: Service-Oriented Architecture Best Practices. Dirk Krafzig, Karl Banke, Dirk Slama. ISBN: 0131465759 • Web Services Platform Architecture: SOAP, WSDL, WS-Policy, WS-Addressing, WS-Bpel, WS-Reliable Messaging and more. Francisco Curbera, Frank Leymann, Tony Storey, Donald Ferguson, Sanjiva Weerawarana. ISBN: 0131488740 • Building Web Services with Java : Making Sense of XML, SOAP,

	<p>WSDL, and UDDI (2nd Edition). Steve Graham, Doug Davis, Simeon Simeonov, Glen Daniels, Peter Brittenham, Yuichi Nakamura, Paul Fremantle, Dieter Koenig, Claudia Zentner. ISBN: 0672326418</p> <ul style="list-style-type: none"> • Expert Service-Oriented Architecture in C#: Using the Web Services Enhancements 2.0. Jeffrey Hasan. ISBN: 1590593901 • Towards Open Grid Services Architecture (OGSA). http://www.globus.org/ogsa/
Papildomos literatūros sąrašas	<ul style="list-style-type: none"> • http://www.webservices.org/ • Contract First Web Services Interoperability between Microsoft .NET and IBM WebSphere. http://msdn.microsoft.com/vstudio/java/interop/websphereinterop/default.aspx • Web Services Security Interoperability Using Web Services Enhancement 2.0 and Systinet Server 5.0 for Java http://msdn.microsoft.com/architecture/default.aspx?pull=/library/en-us/dnbda/html/wssecsysnet.asp
Mokymo metodai (Teaching methods)	Lectures and laboratory exercises
Lankomumo reikalavimai (Attendance requirements)	Attendance is not a formal requirement of this course
Atsiskaitymo reikalavimai (Assessment requirements)	Knowledge of the material and completed laboratory exercises
Vertinimo būdas (Assessment methods)	Multiple-choice test
Aprobuota katedros	
Patvirtinta Studijų programos komiteto	