VYTAUTAS MAGNUS UNIVERSITY
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TITLE OF THE COURSE:	MOBILE APPLICATION INFRASTRUCTURE
Course code:	INF6013
Course group:	C
Faculty:	Faculty of Informatics
Study program:	Applied Informatics
Level:	Master‘s
Semester:	Autumn
ECTS credits:	6
Language of instruction	English, Lithuanian
Course lecturer/s:	Prof. dr. Daiva Vitkutė-Adžgauskienė
***Short course description*:**	The course provides knowledge of mobile application infrastructure as well as that of mobile service and application development technologies. Students learn how to design and implement integrated mobile applications using mobile messaging, mobile positioning, responsive design technologies, how to measure user value, how to ensure application security, how to address user interface issues. Skills in designing downloadable applications for Java, iOS and Android mobile devices are acquired, as well as skills in designing mobile services and solutions, using open web service standards and technologies.
Course content:	Content (topics): 1. Customer value in designing mobile applications. 2. Introduction to mobile communication technologies relevant for application development. 3. Applications based on mobile messaging. Mobile messaging as e-commerce driver. Scenarios for the implementation of value-added messaging. 4. Mobile internet trends. Network connectivity issues in mobile applications. Mobile internet services and their integration into internet portals. 5. Mobile web services - architecture and design. Mobile Web 2.0 applications. Internet of services. 6. Design specifics of responsive vs adaptive Web design.

	7. Java Micro Edition (J2ME) for applications running on mobile and embedded devices - mobile phones, set-top, digital media device, M2M devices. Design specifics. 8. Native mobile applications for Android, iOS, Windows Phone operating environments. Design specifics. Cross compiler approach for designing native applications for several platforms. 9. Integrating location information into mobile applications and services. 10. Human computer interface for mobile applications and services – design principles. User experience design (UXD). 11. Mobile application security. Mobile e-signature solutions. M-identification. 12. Project management specifics for mobile application development. 13. Mobile applications in company ICT infrastructure. 14. Smart devices and M2M applications. Internet of Things (IoT).
Grading and evaluating student work in class and/or at the final exam:	Written mid-term (15%) and final examination (50%), assessment of individual projects, evaluation of written essay, evaluation of oral essay presentation (35%)
Required reading and additional study material	1. Course material in VDU Moodle Virtual Learning Environment 2. P.Golding. Next Generation Wireless Applications. Creating mobile applications in a web 2.0 and mobile 2.0 world. John Wiley & Sons, 2008. 3. H.Dwivedi, C.Clark, D.Thiel. Mobile Application Security. McGrawHill, 2010.
Additional information (if applicable)	