RTU Course "Business Analytics"

12306 Lietišķo datorzinātņu katedra

General data

Code	DPI721
Course title	Business Analytics
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	Uldis Sukovskis
Academic staff	Zigmunds Zitmanis Jānis Grēviņš Renāte Strazdiņa Ilze Birzniece
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
Maximum auditorium capacity	50
Maximum number of students per semester	100
Abstract	Companies are making decisions across all functional areas. The role of information technology specialists is to develop infrastructure to provide decision makers with precise information at the right time and the right place. First part of the course deals with the value chain and analyzes information sources of the main business processes. Accent will be put on the quality management and cost accounting. Second part of the course deals with business intelligence architectures and tools available for enterprise information utilization. Students will have to do a case study to analyze business processes of a particular company and develop metrics and specifications of business intelligence solution.
Goals and objectives of the course in terms of competences and skills	This course is aimed to introduce students to requirements of enterprise business analytics and alternatives available. Within the course students will analyze business processes to define the needs of business analytics and learn how to apply available technologies.
Structure and tasks of independent studies	Students will write and present a group project, using a real business case to analyze its value chain, describe available data sources and create efficient measurement system to increase business performance.
Recommended literature	Decision Support and Business Intelligence Systems 9th International edition, Jay E. Aronson, Efraim Turban, Ting-Peng Liang, Ra, Pearson Education 2010. Thierauf, Robert J. Effective Business Intelligence Systems, Greenwood Publishing Group, Incorporated 2001 (e-grāmata pieejama caur ORTUS). Volitich, Dan IBM Cognos 8 Business Intelligence: The Official Guide ebrary Reader, McGraw-Hill 2008 (e-grāmata pieejama caur ORTUS).
Course prerequisites	Basic knowledge about data bases and accounting or finances.

Course outline

Theme	Hours
Business Concepts: value chain, quality management, cost and financial accounting	16
Business performance management: methods, metrics, KPI	8
Business Intelligence: concepts, organizational roles	16
Available tools to utilize data: analysis, reporting, scorecarding, dashboarding, alerting	18
Decision intelligence: application of business rules in business analytics	6

Learning outcomes and assessment

Learning outcomes	Assessment methods
Students will understand basic business concepts and know how to identify business analytics requirements for the company	Written exam consisting of questions about the theory and questions related to a particular business case
Students will be able to apply business performance management methods and metrics	Group project consisting of a practical case study. Students will have to develop controls for a particular business case.
Knowledge how business intelligence can increase a company's bottom line	Written exam consisting of questions about the theory and questions related to a particular business case

Students will know the main data analysis tools and techniques available	Use a real business case to analyze its value chain, describe available data sources and create efficient measurement system to increase business performance

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		*	