RTU Course "Research Methods in Business Informatics"

33000 Datorzinātnes, informācijas tehnoloģijas un enerģētikas fakultāte

General data

Code	DE0746
Course title	Research Methods in Business Informatics
Course status in the programme	Compulsory/Courses of Limited Choice
Responsible instructor	Ilze Birzniece
Academic staff	Mārīte Kirikova
Volume of the course: parts and credits points	1 part3.0 ECTS credits
Language of instruction	LV, EN
Abstract	Modern society is being moved toward a knowledge-based model within which innovative solutions are created that can be applied to enhance the economy. However, innovative solutions can be created by synthesizing existing knowledge. Scientific methods have been designed and are applied specifically for this purpose, therefore being familiar with such methods should be of benefit to students in business informatics programmes. The main subject of the study course is the introduction to and practical application of scientific methods that can be used in computer science research. Given that some of the students may not be familiar with the concept, the study course presents the types of scientific methods and possibilities of application thereof. Design science research is discussed in detail. To ensure a more efficient learning process, theoretical studies are complemented with a realistic research project of analysis of related work in a specific domain.
Goals and objectives of the course in terms of competences and skills	The goal of the study course is to prepare students for independent scientific work in the field of Business Informatics The objectives of the study course: 1. To provide knowledge about the research process, its main activities and results to be obtained. 2. To provide an understanding of research methods and their selection conditions. 3. To develop the ability to develop and evaluate scientific work. 4. To provide an understanding of the academic integrity of scientific research.
Structure and tasks of independent studies	The assignments are planned as an integral part of the study course. Every theoretical topic has an associated practical exercise that should be performed by student individually.
Recommended literature	Obligātā/Obligatory: Paul Johannesson and Erik Perjons, An Introduction to Design Science, Springer, 2021. Papildu/Additiona: Peter Spyns, María-Esther Vidal, Scientific Peer Reviewing: Practical Hints and Best Practices, Springer, 2015. Research methods in information / Alison Jane Pickard. London: Facet Publ., 2007. Research methods for business students / Mark Saunders, Philip Lewis, Adrian Thornhill. Harlow, England; New York: Financial Times/Prentice Hall, 2007. Research methodology: a step-by-step guide for beginners / Ranjit Kumar. London; Thousand Oaks; New Delhi: SAGE, 2005.
Course prerequisites	Recommended: experience in the thesis or project development.

Course contents

Content	Full- and part-time intramural studies		Part time extramural studies	
	Contact Hours	Indep. work	Contact Hours	Indep. work
The essence and process of a scientific work.	2	3	0	0
Classification of the research methods, quantitative and qualitative research methods.	2	3	0	0
Design Science Research.	4	6	0	0
Structured literature review.	6	6	0	0
Academic writing.	2	6	0	0
Academic integrity in research.	2	4	0	0
Evaluation of research results.	2	6	0	0
The process of the research paper and master thesis development.	12	14	0	0
Total:	32	48	0	0

Learning outcomes and assessment

Learning outcomes	Learning outcomes assessment methods and assessment criteria
Knows research process, main activities, results.	Correctly developed individual and group assignments.
Knows research methods appropriate in Business Informatics research process.	Successfully completed analysis of the research methods applicable in the business informatics master thesis.
Knows research paper development approaches and academic integrity principles.	Correctly developed individual and group assignments.
Is able to conduct research according to the generally accepted methods, standards and techniques.	Developed and presented a scientific paper (exam).

Is able to evaluate the quality of a research paper.	Correctly evaluated scientific paper of another student (individual assignment).

Course tests

Tests	% of final assessment
Individual and group assignments (at least 40% of the maximum of points must be achieved)	50
Exam (research paper development and presentation, at least 40% of the maximum of points must be achieved)	50
Total:	100

Course planning

Part	Semester			CP	Academic hours			Tests		
	Autumn	Spring	Summer		Lectures	Practical	Lab.	Test	Exam	Work
1.	*			3.0	32.0	0.0	0.0		*	