



## COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
<b>Fundamentals of scientific research methodology</b>	

Abstract
In the course of studying "Fundamentals of Research Methodology", students will acquire methodological knowledge about conducting research. Students will be able to choose the appropriate type of research (quantitative or qualitative) to address a research problem. Students will be able to master the fundamental principles of state-of-the-art research and ensure the integrity and validity of the research results. This knowledge will enable students to carry out research that is not only scientifically relevant but also of practical use.

Academic staff	Core academic unit(s)
<b>Coordinating:</b> assoc. prof. Virginijus Tamaševičius, <b>PhD</b> <b>Other:</b>	Faculty of Economics and Business Administration, Department of Management

Study cycle	Type of the course unit
Undergraduate	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
In person	Autumn (7 <sup>th</sup> Semester)	English

Requisites	
<b>Prerequisites:</b>	<b>Co-requisites (if relevant):</b> Not applicable

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
5	130	48	82

Purpose of the course unit: programme competences to be developed
<p>The aim of the subject is to provide knowledge about the application of different research methods in business research and to develop students' abilities to collect, systematize and analyze information enabling them to support business decisions.</p> <p><i>General competences and study program goals:</i></p> <p>1.2. Will be able to have constructive discussions, work independently and in a team, and be tolerant in multicultural and international groups and organizations.</p> <p>2.2. Will demonstrate creative thinking skills, ability to make innovative decisions.</p> <p><i>Specific competences and study program goals:</i></p> <p>4.1. Will be able to collect, process, systematize and evaluate economic, financial, statistical, accounting data and information, using the latest information search sources and applying modern methods of its processing and systematization, carry out research and present conclusions based on research results.</p> <p>4.2. Will be able to analyse and evaluate various economic and social processes, organizational behaviour and environment, interpret legislation and apply it to compiling of various reports, solution of organizational management and professional problems.</p>

5.3. Will be able to analyse, evaluate and forecast organization indicators, identify accounting and financial management problems, choosing complex technological, organizational and methodological measures, applying a systemic and global approach, as well as formulate conclusions, generalizations, proposals.			
<b>Learning outcomes of the study programme</b>	<b>Learning outcomes of the course unit</b>	<b>Teaching and learning methods</b>	<b>Assessment methods</b>
1.2. Will be able to have constructive discussions, work independently and in a team, and be tolerant in multicultural and international groups and organizations.	Will be able to justify chosen research methods to solve the problem of the bachelor's final thesis, as well as argue against/criticize the scientific research choices of their group mates.	Analysis of scientific literature, study of methodological material, discussion	Active participation in seminars, homework assignments (cumulative score).
2.2. Will demonstrate creative thinking skills, ability to make innovative decisions.	Will demonstrate creative thinking skills in selecting appropriate research methods. Will be able to creatively divide complex scientific problems into smaller ones, the solution of which is sufficient with simpler research methods.	Solving practical tasks, case analysis.	Mid-term examination Final examination Homework assignments
4.1. Will be able to collect, process, systematize and evaluate economic, financial, statistical, accounting data and information, using the latest information search sources and applying modern methods of its processing and systematization, carry out research and present conclusions based on research results.	Will be ready to independently collect, systematize and interpret the information needed to select a research design. Will be able to choose appropriate corporate accounting sources to solve the research problem.	Lectures, seminars, working with scientific literature and sources, creating reports, solving tasks, completing tasks in a virtual learning environment, individual work, statistical calculations.	Mid-term examination Final examination Homework assignments
4.2. Will be able to analyse and evaluate various economic and social processes, organizational behaviour and environment, interpret legislation and apply it to compiling of various reports, solution of organizational management and professional problems.	Will be able to select econometric models for modeling the organization's operational processes and their impact on the company's indicators.	Lectures, seminars, work with scientific literature and sources, solving tasks, statistical calculations.	Final examination Homework assignments

5.3. Will be able to analyse, evaluate and forecast organization indicators, identify accounting and financial management problems, choosing complex technological, organizational and methodological measures, applying a systemic and global approach, as well as formulate conclusions, generalizations, proposals.	Will be able to combine different research methods in order to identify possible problem areas in the company's accounting that could potentially affect the integrity of the company's accounting process.	Lectures, seminars, work with scientific literature and sources, solving tasks, individual work, case analysis.	Final examination Homework assignments
--	---	---	---

Content	Contact hours						Individual work: time and assignments		
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
1. Nature and main categories of research: definition of research, type of research, categories of research	2						2	2	Studying scientific literature, studying materials provided by teacher
2. Philosophies of research: positivism and interpretivism	2						2	2	Studying scientific literature, studying materials provided by teacher
3. Process of research: research topic, problem, rationale, aims and objectives, conceptual structure of research, choice of methods, data collection and analysis, preparation of the report	2						2	2	Studying scientific literature, studying materials provided by the lecturer, completing assignments
4. Fundamentals of quantitative research methodology: conceptualization of quantitative research, working definitions, causal relationships, formulation and testing of hypotheses	2		2				4	3	Studying scientific literature, studying materials provided by the lecturer, completing assignments
5. Principles of qualitative research methodology: Diversity of qualitative research, conceptualisation of qualitative research, characteristics of qualitative data	2		2				4	3	Studying scientific literature, studying materials provided by the lecturer, completing assignments
6. Literature analysis: purpose of analysis, principles of literature analysis, systematisation (PRISMA, SALSAR	3		2				6	6	Studying scientific literature,

methods), bibliographic analysis (VosViewer)									studying materials provided by the lecturer, completing assignments
7. Formulating a research methodology: Purpose, presentation, combination of different methodologies, research sample	2						2	3	Studying scientific literature, studying materials provided by the lecturer, completing assignments
8. Structured questionnaires: constructs and original questionnaires	2		2				4	6	Studying scientific literature, studying materials provided by the lecturer, completing assignments
<b>Mid-term examination</b>	1							6	Reviewing material
9. Case studies: single-case analysis, multiple-case analysis	1		2				3	6	Studying scientific literature, studying materials provided by the lecturer, completing assignments
10. Interviews: in-depth, focused, expert. Focus groups.	1		2				3	10	Studying scientific literature, studying materials provided by the lecturer, completing assignments
11. Other data collection methods: secondary data analysis, experiment, observation.	1						1	5	Studying scientific literature, studying materials provided by the lecturer, completing assignments
12. Quantitative data analysis: types of variables, descriptive statistics, hypothesis testing statistics	6		2				8	10	Studying scientific literature, studying materials provided by the lecturer, completing assignments
13. Qualitative data analysis: content analysis and thematic analysis	3		2				5	6	Studying scientific literature, studying materials provided by the lecturer, completing assignments

14. Ethical requirements for research: ethical requirements for the research process, plagiarism, use of artificial intelligence	2						2	2	Studying scientific literature, studying materials provided by the lecturer, completing assignments
<i>Preparation for the exam</i>								10	Reviewing material.
<b>Total</b>	<b>32</b>		<b>16</b>				<b>48</b>	<b>82</b>	

Assessment strategy	Weight %	Deadline	Assessment criteria
Mid-term examination	40% (40 points)	November	<p>The mid-term assessment consists of theoretical and practical tasks of varying difficulty. The midterm aims to test students' mastery of general research methodology.</p> <p><b>Excellent:</b> excellent knowledge and skills. Excellent understanding of the differences between different methodologies and their requirements for research. The student is able to assess all the necessary factors when choosing a research methodology.</p> <p><b>Very good/good:</b> student has a good understanding of the different research methodologies. However, there is a lack of understanding of the more specific elements of the methodologies.</p> <p><b>Average:</b> Knowledge and skills are average. The student understands the basic requirements for quantitative and qualitative research but is only able to apply them correctly to simple research problems.</p> <p><b>Satisfactory/weak:</b> knowledge and skills are minimal. The student understands the essential differences between quantitative and qualitative research but makes many errors in defining and applying specific requirements.</p> <p><b>Unsatisfactory:</b> does not meet the minimum requirements. The student is unable to identify the essential features of good research and confuses the requirements of quantitative and qualitative research.</p> <p>A positive evaluation of this part is a <i>prerequisite for a positive final evaluation</i> of the course</p>
Independent continuous task	20% (20 points)	During the semester	<p><b>Excellent:</b> on time, independently and excellently completed all assigned independent tasks.</p> <p><b>Very good/good:</b> on time and independently completing all assigned independent tasks with few (minor) errors.</p> <p><b>Average:</b> More than 2/3 of the assigned tasks were completed on time and independently; errors and inaccuracies in the solutions.</p> <p><b>Satisfactory/weak:</b> completes more than half of the assigned tasks on time, with many (major) errors.</p> <p><b>Unsatisfactory:</b> completes less than half of the assigned independent tasks and makes many (major) errors or does not complete the task at all.</p> <p>The assigned tasks reflect different elements of the research and different research methodologies. Their totality provides skills in planning both quantitative and qualitative research.</p>
Examination	40% (40 points)	January	<p>The exam consists of theoretical and practical tasks of varying difficulty. The exam aims to test students' mastery of general research methodology, the differences between methodologies, and their ability to plan a research study in a methodologically sound manner.</p>

			<p><b>Excellent:</b> excellent knowledge and skills. Excellent understanding of the differences between different methodologies. Able to assess all the necessary factors when choosing a research methodology. Able to plan both quantitative and qualitative research properly. Understands how to interpret the results obtained from a study</p> <p><b>Very good/good:</b> The student has a good understanding of different research methodologies. However, a more detailed understanding of the more specific elements of the methodologies is lacking. Minor errors in research design occur.</p> <p><b>Average:</b> Knowledge and skills are average. The student understands the basic requirements for quantitative and qualitative research but is only able to apply them correctly to simple research problems. The student is able to develop appropriate research designs for simple research problems but makes methodological errors in more complex research problems.</p> <p><b>Satisfactory/weak:</b> minimal knowledge and skills. The student understands the fundamental differences between quantitative and qualitative research but makes many errors in defining and applying specific requirements even in the simplest research designs.</p> <p><b>Unsatisfactory:</b> does not meet the minimum requirements. The student is unable to identify the essential features of good research, mixes the requirements of quantitative and qualitative research, and is unable to prepare a coherent research plan for even the simplest research problems.</p>
Active participation in seminars (Extra Points)	10 points	During the semester	Actively participates in seminars, constructively criticizes research methods/research ideas chosen by colleagues. Proposes solutions to address identified deficiencies.
Final assessment			<p>The final assessment consists of the total number of points collected during the mid-term test and the exam, as well as the assessment of the continuous independent task and active participation in the seminars.</p> <p><b>Excellent:</b> 95 points or more.</p> <p><b>Very good:</b> 85-94 points.</p> <p><b>Good:</b> 75-84 points.</p> <p><b>Average:</b> 65-74 points.</p> <p><b>Satisfactory:</b> 55-64 points.</p> <p><b>Weak:</b> 45-54 points.</p> <p><b>Unsatisfactory:</b> less than 45 points.</p>
Equivalency examination	100%		<p>The exam consists of closed and open test tasks of varying complexity. The purpose of the exam is to check how students have mastered the knowledge of topics 1-12, related to the ability to perform a qualitative analysis of scientific literature and to select appropriate quantitative and qualitative research methods for solving scientific and practical accounting and/or auditing problems.</p> <p>Assessment:</p> <p><b>Excellent:</b> 95-100% correct answers.</p> <p><b>Very good:</b> 85-94% correct answers.</p> <p><b>Good:</b> 75-84% correct answers.</p> <p><b>Average:</b> 65-74% correct answers.</p> <p><b>Satisfactory:</b> 55-64% correct answers.</p> <p><b>Weak:</b> 45-54% correct answers.</p>

Author (s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
<b>Required reading</b>				
Bryman, A.	2016	Social Research Methods	5th edition	Oxford, Oxford University Press.
Babbie, E.	2020	The Practice of Social Research	15th edition	Wadsworth, Cengage Learning.
<b>Recommended reading</b>				
Manish Kumar	2023	<i>Research Methodology</i>		University Science Press
Miles, M. B., Huberman A. M., Saldana J.	2020	Qualitative data analysis. A methods source book	4th edition	Thousand Oaks, Sage