

Identification	Subject	ECON 305 Qualitative and Quantitative Research Methods-4KU/8ECTS
	Department	School of Economics and Management
	Program (Undergraduate, Graduate)	Undergraduate
	Term	Fall 2026
	Instructor	Fuad Bagirov, Ph.D.
	Email:	fuad.baghirov@khazar.org
	Classroom/hours	3 contact hours per week; classroom and schedule TBA
Prerequisites	Basic academic writing and elementary numerical literacy recommended.	
Language	English	
Compulsory/Elective	Compulsory	
Textbooks and course materials	Core materials: • Instructor-prepared chapters from the forthcoming textbook Qualitative and Quantitative Research Methods (drafts released during the semester). • Selected research-methods articles, methodological guides, case studies, inspection/audit materials, datasets, and instructor-prepared exercises. • Khazar University Generative Artificial Intelligence Use Rules (current institutional version). • Original sources identified through library, web, database, or AI-assisted source discovery. Students cite the original source, not an AI summary.	
Course description	This course examines how curiosity, practical problems, observations, concepts, measurements, and arguments are transformed into defensible research. It develops qualitative, qualitative-quantitative, quantitative, mixed, and conceptual/philosophical approaches while emphasising that different questions require different forms of evidence and reasoning. A distinctive feature is the use of inspection, audit, certification, monitoring, evaluation, and instructor research cases as models of structured inquiry. The course also develops responsible AI literacy: AI-assisted search and source discovery are used to broaden the research field, while generative AI is treated as a limited and transparent support tool rather than a substitute for the student's analysis. Throughout the semester, students design and defend a small applied research project grounded, where appropriate, in personal experience, local knowledge, professional interests, and independently verified sources.	
Course objectives	• Understand research as a disciplined way of knowing rather than merely data collection, calculation, or information search. • Develop the ability to formulate researchable problems and questions and to select evidence and methods appropriate to them. • Build competence in qualitative, qualitative-quantitative, quantitative, and mixed approaches, including criterion-based evaluation. • Develop evidence-based reasoning, verification, critical interpretation, and recognition of uncertainty and alternative explanations. • Use AI-assisted search and source discovery effectively, and use generative AI transparently and responsibly without surrendering authorship or judgement. • Produce and defend applied research that demonstrates individual analytical contribution, contextual knowledge, originality, and methodological discipline.	

Learning Outcomes	1. Explain what distinguishes research from curiosity, opinion, information collection, measurement, and unsupported explanation. 2. Transform a broad topic or practical concern into a research problem, aim, coherent questions, scope, and unit of analysis. 3. Decompose complex phenomena into analytically useful components without unnecessary overlap or omission. 4. Clarify concepts and operationalise them through characteristics, criteria, indicators, variables, and appropriate forms of evidence. 5. Design an evidence strategy and evaluate evidence for relevance, reliability, sufficiency, independence, consistency, and traceability. 6. Design and apply observation and interview procedures and conduct basic coding, content analysis, thematic analysis, and case comparison. 7. Distinguish observation, interpretation, evaluative judgement, explanation, recommendation, and conclusion. 8. Construct and apply ordinal scales, classification rules, scoring systems, weighting, and assessment matrices while avoiding false precision. 9. Conduct and interpret basic descriptive statistical analysis and introductory comparisons, relationships, and uncertainty. 10. Integrate qualitative, qualitative-quantitative, and quantitative evidence in mixed research designs and distinguish mathematical formalisation from quantitative research.		
	11. Use AI-assisted search and source discovery to identify authors, publications, concepts, keywords, and adjacent research traditions; independently verify and cite original sources. 12. Use generative AI only for permitted support functions, disclose its use, protect confidential data, verify generated material, and reject fabricated evidence or sources. 13. Prepare and defend a research report whose strongest elements are evidence-based individual reasoning, original connections, and contextually grounded interpretation.		
Teaching methods	Case analysis	x	
	Group discussion	x	
	Lecture	x	
	Practical workshop / research lab	x	
Evaluation Criteria	Methods	Date/deadlines	Percentage (%)
	Midterm Exam	After Week 7	30
	Quizzes	Throughout semester	5
	Practical Assignments & Research Design Portfolio	Weekly milestones	15
	Activity & Methodological Discussion	Ongoing	10
	Attendance	Ongoing	5
	Final Applied Research Project & Defence	Week 15 / final period	35
	Total		100

Class Policy		Assessment philosophy. High achievement requires evidence-based individual reasoning, original connections, contextual knowledge, and the ability to explain and defend analytical choices. Where relevant, students are encouraged to draw on personal, local, cultural, academic, or professional experience and then test those insights against evidence. Generic AI-generated responses, even when factually correct, do not by themselves demonstrate the learning outcomes and will receive limited credit. Academic integrity and authorship. Submitted work must represent the student's own research design, analysis, interpretation, and conclusions. Fabrication, falsification, plagiarism, selective suppression of contradictory evidence, and presentation of generated or simulated material as genuine research data are prohibited. AI-assisted search and source discovery - fully permitted. Students may use AI tools to identify potentially relevant authors, publications, concepts, terminology, keywords, comparative cases, neighbouring disciplines, and research traditions. This use is encouraged particularly in qualitative and comparative research. The student must independently access, read, evaluate, and cite the original source. An AI summary is not a source. Source discovery itself is not treated as submitted AI-generated text when the final analysis is written by the student from independently verified original materials. Generative AI - partially permitted. Course permission level for Generative AI: Partial Permission. Generative AI may be used for brainstorming, development of research questions, conceptual decomposition, organisation of material, generation of alternative explanations and counterarguments, preliminary coding support, comparison of interpretations, language editing, and other purposes explicitly allowed by the instructor. It may support the student's thinking but may not replace it. Disclosure and extent of generative use. Use of generative AI in submitted work must be disclosed, including the tool and the purpose/extent of use, in accordance with Khazar University policy. In text-based submissions, AI-generated text may not exceed 25% of the document. Students remain responsible for the accuracy, reliability, originality, and appropriateness of all submitted content. Prohibited uses. AI use is prohibited during quizzes, the midterm examination, live/oral defence, and any other controlled assessment unless explicitly authorised. The final written research project may use AI only within the permitted support functions above and with full disclosure. Students must not submit AI-generated work as their own or use AI to fabricate interviews, observations, quotations, measurements, references, datasets, statistical results, or research findings. Privacy and research data. Personal, confidential, internal, non-anonymised, unpublished, embargoed, or otherwise protected information must not be uploaded to generative AI systems. Interview and survey materials must be properly anonymised before any permitted AI-assisted analysis. Students are responsible for data protection and confidentiality. Consequences. Depending on the nature and severity of a violation, measures may include an oral or written warning, resubmission, reduction of the assignment grade, or a grade of zero, consistent with Khazar University Generative Artificial Intelligence Use Rules and academic integrity requirements.	
Tentative Schedule			
Wk	Date/Day (tentative)	Topics	Textbook/Assignments
1		Research and Ways of Knowing What is research? Curiosity, observation, explanation, information search and measurement: practical roots of	Instructor Ch. 1 draft; reflection: “What counts as research?”; Quiz 1: select a

		inquiry (Nile, land and water); Newton: conceptual discovery, gravity and the spectrum; philosophical/conceptual inquiry.	preliminary research area.
2		Research Problems, Aims, Questions, and Scope Topic versus research problem; knowledge gaps and practical problems; aims, questions, scope, boundaries, unit of analysis and feasibility.	Problem statement + preliminary research question.
3		Decomposition of Complex Problems Components and subcomponents; analytical trees; avoiding overlap and omission; decomposing quality, sustainability, safety, effectiveness and convenience.	Decomposition diagram / analytical tree.
4		Concepts, Characteristics, Criteria, Indicators, and Variables Concepts and constructs; characteristics and dimensions; requirements, criteria, indicators and observable signs; variables, thresholds and benchmarks.	Conceptual and criteria/indicator framework.
5		Operationalisation, Measurement, and Evaluation Making abstract concepts observable; direct, indirect and proxy indicators; measurement versus evaluation; units, categories, scales and thresholds.	Operationalisation matrix.
6		Data, Evidence, Sources, and Verification Information versus evidence; relevance, reliability, sufficiency, independence, consistency and traceability; primary/secondary sources; contradictory evidence and triangulation.	Evidence matrix / source strategy.
7		Qualitative Observation and Interviewing Structured/unstructured and participant/non-participant observation; field notes and bias; structured, semi-structured and in-depth interviews; probing and leading questions.	Observation protocol + short interview guide.
		Midterm Exam - methodological cases, applied questions, and critique (AI-free)	
8		AI-Assisted Research: Search, Discovery, Generation, and Verification AI-assisted source discovery; authors, articles, keywords and adjacent traditions; verification of original sources; generative support versus authorship; hallucination, bias, privacy, disclosure, anonymisation and the 25% text limit.	AI research trail: source-discovery exercise + verification log + AI-use statement.
9		Qualitative Coding, Content Analysis, and Thematic Analysis Units of analysis; codes, categories, themes and codebooks; inductive/deductive coding; explicit/implicit content; uncertainty and contradiction; AI-assisted coding as support.	Code a small set of open responses; coding/analysis plan.
10		Inspection, Audit, and Certification as Research Processes Scope, requirements, sampling, objective evidence, findings and conformity; inspection as criterion-based applied inquiry; comparison with academic research.	Simulated inspection case; separate evidence, finding, judgement and conclusion.
11		Qualitative-Quantitative Scales and Classification Binary and multi-level classifications; ordinal scales; major/minor deviations; severity, materiality, anchors, boundary cases, insufficient evidence and N/A.	Draft classification system / assessment scale.
12		Scoring, Weighting, Matrices, and Composite Indices Scores as numerical expressions of judgement; weighting; critical criteria; multi-criteria matrices; aggregate scores, indices, normalisation, sensitivity and false precision.	Design and test a scoring/comparison model.

13		Quantitative Data and Descriptive Statistics Variables and levels of measurement; population and sample; questionnaire design; frequencies, percentages, mean, median, mode, range, standard deviation; outliers and missing values.	Analyse a small dataset; concise statistical description.
14		Hypotheses, Relationships, Causality, and Interpretation Research/statistical hypotheses; confidence and uncertainty; statistical versus practical significance; group comparison; correlation, introductory regression, causation and limits of conclusions.	Interpret outputs; draft preliminary findings and conclusions.
15		Mixed Methods, Integration, Reporting, and Research Defence Mixed-methods designs; triangulation and integration; contradictory findings; confidence and limitations; report structure; recommendations; ethical responsibility and methodological defence.	Submit final applied research report and portfolio; project presentation and defence.
		Final Assessment - applied research project and methodological defence	