

Subject Details	Subject Title, code and credit hours	CPSY 532, Research and statistics in (clinical) psychology, 6 ECTS	
	Department	Psychology	
	Program (bachelor master)	Master	
	Academic semester	2025 Fall	
	Instructor	Melike Yavuz, Assoc. Prof.	
	E-mail:	melike.yavuz@khazar.org	
	Phone		
	Room	Neftchilar Campus	
	After class consultations:	After class sessions (around 10 minutes)	
Teaching language	English		
Subject	Mandatory		
Teaching literature	<ul style="list-style-type: none">➤ Kothari, C. R. (2004). <i>Research Methodology: Methods & Techniques</i>. New Age International Publishers.➤ Brink, H., van der Walt, C., & van Rensburg, G. (2006). <i>Fundamentals of Research Methodology for Health Care Professionals</i>. Juta Academic.➤ Kumar, R. (2011). <i>Research Methodology: A Step-by-Step Guide for Beginners</i>. Sage Publications.➤ Gordis, L. (2014). <i>Epidemiology</i> (5th ed.). Elsevier Saunders.➤ Silverman, D. (2017). <i>Doing Qualitative Research: A Practical Handbook</i> (5th ed.). Sage Publications.➤ Daniel, W. W. (2013). <i>Biostatistics: A Foundation for Analysis in the Health Sciences</i> (10th ed.). Wiley.➤ Rosner, B. (2015). <i>Fundamentals of Biostatistics</i> (8th ed.). Cengage Learning.		
Teaching methods	Lectures	+	
	Group discussion	+	
	Practical exercise	+	
	Case study analyzing	+	
Assessment and Grading	Components	Dates/ deadline	Percentage (%)
	Midterm	Week 8	30 (6 open questions) each will be evaluated max 5 points
	Activity	During semester	5 (how active student on classes)
	Critical review of an article	During semester	10 (questions, which will bebased on article)

	Student presentations	During semester	10 (project done by student individually)
	Final exam	January	40 (5 open questions) each of them will be evaluated by 8 points
	Attendance	4 absences in class are the limit.	5 (presence of student on on-line or offline classes)
	Total		100
Course description	<p>This course provides students with a comprehensive introduction to the fundamental principles and methods of research and statistical analysis in clinical psychology. Emphasizing both theoretical knowledge and practical skills, the course covers research design, data collection, and advanced statistical techniques relevant to clinical settings. Students will learn how to critically evaluate empirical studies, apply appropriate statistical tests, and interpret results within the context of psychological research. The course also highlights ethical considerations in research and the application of statistics to evidence-based clinical practice.</p> <p>By the end of the course, students will be able to design and conduct research studies, analyze quantitative data using statistical software, and communicate findings effectively in both written and oral formats.</p>		
Course aims	<ul style="list-style-type: none"> • To provide students with a comprehensive understanding of the research process in psychology. • To enable students to develop hypotheses, identify variables, and select appropriate research methods. • To equip students with the ability to conduct descriptive, observational, and experimental studies. • To introduce students to basic biostatistical tools for analyzing research data. 		
Learning Outcomes	<p>By the end of the semester, students will be able to:</p> <ul style="list-style-type: none"> ➤ Understand the principles and process of scientific research in psychology. ➤ Formulate research problems, hypotheses, and identify variables. ➤ Distinguish between different research designs (descriptive, cross-sectional, cohort, randomized controlled, qualitative). ➤ Apply basic statistical concepts, including measures of central tendency, dispersion, and hypothesis testing. ➤ Select and conduct appropriate statistical tests (Chi-square, t-tests, ANOVA, non-parametric tests). ➤ Critically evaluate and present research findings. 		
Marking Criteria	<p>1. Class Activity – 5%</p> <ul style="list-style-type: none"> • Assessed based on student's engagement during lessons (online or offline). <p>Marking Criteria:</p> <ul style="list-style-type: none"> • 5 points: Actively contributes in nearly every class, participates in discussions, asks/answers questions. • 3–4 points: Participates in most classes, occasional input. • 1–2 points: Rarely contributes or passive participation. • 0 points: No visible engagement. <p>Student Expectations:</p>		

	<ul style="list-style-type: none"> • Stay active and attentive during lessons. • Take part in class discussions and group work. • Show consistent effort throughout the semester. 	
	<p>2. Critical Review of an Article – 10%</p> <ul style="list-style-type: none"> • Based on questions related to an academic or thematic article. <p>Marking Criteria:</p> <ul style="list-style-type: none"> • 9–10 points: Provides in-depth analysis, answers all questions clearly with references to the article. • 7–8 points: Good understanding, answers most questions well, some interpretation. • 5–6 points: Adequate response, may lack depth or clarity. • 3–4 points: Limited analysis, superficial responses. • 0–2 points: Incomplete or off-topic answers. <p>Student Expectations:</p> <ul style="list-style-type: none"> • Read and analyze the article carefully. • Answer all related questions. • Demonstrate understanding and critical engagement with the content. 	
	<p>3. Student Presentation – 10%</p> <ul style="list-style-type: none"> • Individual project to be presented in class. <p>Marking Criteria:</p> <ul style="list-style-type: none"> • 9–10 points: Well-researched, clear structure, confident delivery, engages the audience, visual aids used effectively. • 7–8 points: Good presentation with minor issues in clarity or delivery. • 5–6 points: Basic presentation, lacks structure or detail. • 3–4 points: Weak delivery or limited content. • 0–2 points: Poor or no presentation. <p>Student Expectations:</p> <ul style="list-style-type: none"> • Choose a relevant topic. • Prepare slides or materials. • Present ideas clearly and confidently. • Stick to the time limit and answer any questions from peers or instructor. 	
	<p>4. Attendance – 5%</p> <ul style="list-style-type: none"> • Maximum of 4 absences allowed (online or offline). <p>Marking Criteria:</p> <ul style="list-style-type: none"> • 5 points: 0–1 absence • 4 points: 2 absences • 3 points: 3 absences • 2 points: 4 absences • 0 points: More than 4 absences <p>Student Expectations:</p> <ul style="list-style-type: none"> • Attend classes regularly (online or in person). • Notify the instructor in case of justified absence. 	

Rules of educational policy and behavior)	<p>Attendance and criteria for being late for a lesson:</p> <ul style="list-style-type: none"> ➤ It is important for students to attend all classes. If a student is unable to attend classes for a valid reason (illness, family status, etc.), he / she must report the matter to the faculty dean. Students who do not take more than 20% of the total subject matter hours are not allowed to take the exam. <p>Criteria for practical issues:</p> <ul style="list-style-type: none"> ➤ Identifying projects for individual presentation and presenting them to the group with presentations based on innovation, and topic-based research. ➤ Students will be actively involved in the questionnaire and questioning methodology so that they can self-assess and gain insight into each subject's new teaching and learning skills. <p>Criteria for assessing activity:</p> <ul style="list-style-type: none"> ➤ Disrupting the classroom and using unethical phrases during class, engage in inappropriate and unauthorized discussions, use cell phones, hearing aids and radio, and engage in other activities not related to the course (reading, writing, taking pictures, etc.). is regarded as a factor affecting activity ➤ Active participation in discussions.
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Schedule		
Week	Topics	Textbook
1	Introduction to the Course Research and Research Process	Research Methodology: Methods & Techniques – Kothari, C. R., 2004. New Age International Publishers. Chapter 1: <i>Research Methodology: An Introduction</i>
2	The Research Problem Literature Review	Fundamentals of Research Methodology for Health Care Professionals – Hilla Brink (rev. by Christa van der Walt & Gisela van Rensburg). Chapter 5: <i>Selecting or Identifying Research Problems</i> ; Chapter 6: <i>The Literature Review</i>
3	Concept of Variable in Research Hypothesis and Constructing Hypothesis	Research Methodology: A Step by Step Guide for Beginners – Ranjit Kumar. Chapter 5: <i>Identifying Variables</i> ; Chapter 6: <i>Constructing Hypotheses</i>
4	Data Collection Types of Research Studies	Research Methodology: A Step by Step Guide for Beginners – Ranjit Kumar. Chapter 8: <i>Selecting a Study Design</i> ; Chapter 9: <i>Selecting a Method of Data Collection</i>
5	Descriptive studies Cross-sectional Studies	Epidemiology – Leon Gordis. Chapter 10: <i>Case-Control and other study designs</i>
6	Case-control studies	Epidemiology – Leon Gordis. Chapter 10: <i>Case-Control and other study designs</i>
7	Cohort Studies	Epidemiology – Leon Gordis. Chapter 9: <i>Cohort Studies</i>

8	Midterm Exam	
9	Randomised Controlled Studies	Epidemiology – Leon Gordis. Chapter 8: <i>Randomised Controlled Trials</i> ;
10	Qualitative Studies	<i>Doing Qualitative Research: A Practical Handbook</i> – David Silverman.
11	Introduction to Biostatistics Measures of Central Tendency Measures of Dispersion	<i>Biostatistics: A Foundation for Analysis in the Health Sciences</i> – Wayne W. Daniel. Chapter 3: <i>Summarizing Data: Measures of Central Tendency</i>
12	Parametric & Non-Parametric Tests Chi-square Test	<i>Fundamentals of Biostatistics</i> – Bernard Rosner. Chapter 10: <i>Parametric vs Nonparametric Methods</i> Chapter 12: <i>Chi-Square Tests</i>
13	Student t-test – Mann Whitney U Test	<i>Biostatistics: A Foundation for Analysis in the Health Sciences</i> – Wayne W. Daniel. Chapter 9: <i>t Tests</i> Chapter 11: <i>Nonparametric Tests (Mann-Whitney U)</i>
14	ANOVA – Kruskal Wallis Test	<i>Fundamentals of Biostatistics</i> – Bernard Rosner. Chapter 13: <i>Analysis of Variance (ANOVA)</i> Chapter 14: <i>Nonparametric Methods (Kruskal-Wallis)</i>
15	Presentation	
Final Exam		