



EDU423 – Research Methods in Education Course Syllabus

Course Name	Research Methods in Education
Course Code	EDU423
Type of Course	Compulsory
Course Level	Undergraduate
ECTS Credits	4
Weekly Theory Hour	2
Weekly Practice Hour	-
Weekly Laboratory Hour	-
Year	2013
Term	FALL
Instructor (s)	Assist. Prof. Dr. Seren Başaran
Teaching System	Lecturing; This course utilizes the Moodle course management system to share information and resources. To access the course site, log on to this link: http://elearning.gau.edu.tr and select the course from list of courses. All course materials will be posted here.
Education Language	ENGLISH
Prerequisite Course	-
Other Recommended Matters	-
Training Status	-
Course Objectives	<p>By actively participating in the course students will be able to:</p> <ul style="list-style-type: none"> • Understand how the scientific method applies to research in education • Understand the ethical issues in educational research • Identify the main components of research problems • Differentiate between categories of variables • Distinguish between directional and non-directional hypotheses • Identify and describe the major categories of research (experimental, single subject, correlational, causal comparative, survey, historical, content analysis, and qualitative) • Describe the sampling methods and instrumentation techniques used to collect data in the major categories of research • Understand test reliability and validity and the importance of these concepts when conducting research • Understand the difference between nominal, ordinal, interval, and ratio data and how these differences

	<p>influence the selection of appropriate statistical procedures</p> <ul style="list-style-type: none"> • Understand the differences between descriptive and inferential statistics • Understand the characteristics of qualitative research and the procedures for gathering qualitative data • Apply the knowledge gained from this course to evaluate research reports
<p>Learning Outcomes</p>	<p>When students have completed this course, they will have knowledge and understanding of:</p> <p>Knowledge and understanding</p> <ol style="list-style-type: none"> 1. the range of research methods and designs that could be used and their appropriate application in investigating specific research questions 2. the ethical issues and challenges that may arise in the research process 3. project planning and development a range of quantitative and qualitative research methods <p>Cognitive skills</p> <ol style="list-style-type: none"> 5. demonstrate and formulate research questions or hypotheses that can be investigated within the time span of the course 6. use sophisticated data analysis software 7. interpret existing data sets and analyse collected data and present it appropriately <p>Key skills</p> <ol style="list-style-type: none"> 8. demonstrate your awareness of the issues in choice, design and application of research methods 9. project planning and presenting written work within tight time constraints. <p>Communication</p> <ol style="list-style-type: none"> 10. develop writing skills appropriate to this level of work 11. present research results to both academic and professional audiences. <p>Application of number</p> <ol style="list-style-type: none"> 12. interpret existing data sets and analyse collected data and present appropriately. <p>Learning how to learn</p> <ol style="list-style-type: none"> 13. develop autonomy as a learner 14. develop skills of reflection.
<p>Course Content</p>	<p>This is an introductory course designed to help students understand and evaluate the educational research literature. Through participation in the course, class members will learn the basic concepts and procedures used for conducting educational research. The course is intended to help students</p>

		become better consumers of research.	
Weekly Detailed Plan	WEEK	TOPICS	
		Theoretical	Lab (Practical)
	1	Introducing the course	
	2	Nature of educational research	
	3	Ethics and research/Variables, hypotheses, reviewing literature, sampling	
	4	Instrumentation/validity, reliability, descriptive statistics	Assignment 1: Starting to prepare a research proposal
	5	Inferential statistics/statistics in perspective/internal validity	SPSS applications
	6	Revision	
	7	Midterm	
	8	Experimental Research Designs	SPSS applications
	9	Correlational Research	Assignment2: Descriptive and Inferential Statistics Project Introducing SPSS
	10	Causal Comparative Research Design	
	11	Survey Research	
	12	Content Analysis	
	13	Qualitative and Historical Research	
14	Revision		
15	Final		
Textbook/Recommended Readings	<ul style="list-style-type: none"> • Fraenkel, J.R., & Wallen, N.E. (2009). How to design and evaluate research in education (7th ed.) New York: McGraw-Hill Inc. • Creswell, J.W. (2003). Research design. Qualitative, quantitative and mixed methods approaches. Thousand Oaks, CA: Sage. • Christensen, L. B., Johnson, R. B., & Turner, L. (2011). Research methods, design, and analysis. (11th ed.) Boston: Allyn & Bacon. • APA Format: http://www.apa.org 		
ASSESSMENT METHODS			
Term Activities	Number	Semester(Year) Contribution %	
Assignment1	1	20	
Assignment2	1	20	
Midterm	1	25	
Final	1	35	
TOTAL		100	

Percentage of Classroom Activities		40	
Percentage of Exam Activities		60	
	TOTAL	100	
Calculation work load within the framework of learning, teaching and evaluation activities			
Activities	Number	Time (Hour)	Total Work Load (hour)
Weekly Theory&Practice Hour	14	2	28
Assignment 1	1	15	30
Assignment2	1	20	25
Midterm	1	12	20
Final	1	20	20
TOTAL WORKLOAD (hour)= 123			
COURSE ECTS CREDIT=Total Work Load (hour) / (30 hour/ECTS)= 123 / 30 = 4.1			

Additional Information about the Assignments(100 points each):

Individual projects are assigned to students on a specific topic .

Assignment 1: Research Proposal:Students will prepare a research proposal meticulously on a given topic by following the steps of conducting an educational research

(topic,problem,purpose,questions,hypotheses,literature review and methodology, analysis)

Assignment2: Descriptive and Inferential Statistics Project: Students will analyze and interpret the given set of data. They are asked to provide decisions based on the statistical procedures.

Programme and learning outcomes

Learning Outcomes (LO)	Programme Outcomes (PO)																
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PO 13	PO 14	PO 15	PO 16	PO 17
L01		4	3		5											5	
L02		4	3		5											5	
L03		4	3		5											5	
L04		4	3		5											5	
L05		4	3		5											5	
L06		4	3	4	5	5										5	
L07		4	3		5											5	
L08	5	4	3	5	5	5										5	
L09	5	4	3	5	5	5										5	
L10			3		5											5	
L11			3	5	3	5										5	
L12			3		5			5							5		
L13			4														
L14			5	5		5											

Contribution Level:

- 1 very low
- 2 low
- 3 medium
- 4 high

CITT Department Programme Outcomes

- 1.** Having adequate level of knowledge and skills in current/new computing and educational technologies.
- 2.** Having sufficient communication and teaching skills in teaching profession.
- 3.** Being able to teach updated computing technologies efficiently in English.
- 4.** Being able to identify information technology problems through using various analysis and synthesis.
- 5.** Being pragmatic to develop and apply persistent information technology solutions to educational and business problems.
- 6.** Being able to use critical and computational thinking skills to produce alternative solutions at every level of project development life-cycle.
- 7.** Being capable to work in disciplinary and interdisciplinary teamwork.
- 8.** Being sensitive, reactive and responsive to professional, social and ethical issues. Having social and ethical awareness in teaching and in providing solutions to problems.
- 9.** Having adequate level of knowledge and skills in current/new computer hardware, operating systems and computer networks.
- 10.** Adequate level of knowledge and skills in current/new programming languages, programming paradigms (procedural and object-oriented) and programming environments (visual, console-based programming).
- 11.** Being able to analyse, plan and manage educational software design and project development.
- 12.** Having the capability of evaluating and criticising educational software design and development.
- 13.** Adequate level of knowledge in using and integrating current/new e-learning and distance education systems such as learning management systems (LMS).
- 14.** Having sufficient skills and knowledge in using instructional technology and material design.
- 15.** Having skills to apply and use special teaching approaches, theories, teaching strategies, methods and techniques (such as to those people with disabilities).
- 16.** Using appropriate measurement and evaluation techniques to assess students' learning and development in addition to supporting them with good level of feedback.
- 17.** Having sufficient knowledge in the process of establishment of Republic of Turkey. Identifying social, cultural, political and economic problems through understanding Ataturk's principles and revolution.