RESEARCH METHODS IN EDUCATION

1	Course Title:	RESEARCH METHODS IN EDUCATION
2	Course Code:	MBZ0017
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	2
6	Semester:	3
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. DİLEK ZEREN ÖZER
15	Course Lecturers:	Doktorasını/uzmanlığını aynı alandan almış öğretim elemanları
16	Contact information of the Course Coordinator:	Doç.Dr. Dilek ZEREN ÖZER Bursa Uludağ Üniversitesi Eğitim Fakültesi Matematik ve Fen Bilimleri Eğitimi Bölümü Fen Bilgisi Eğitimi Anabilim Dalı E Blok Görükle /BURSA Tel: 0 224 2942254 E-posta: dzeren@uludag.edu.tr
17	Website:	
18	Objective of the Course:	Basic concepts and principles of research methods; research process (recognizing the problem, identifying the problem and sample, collecting and analyzing data, interpreting the results); general characteristics of data collection tools; analysis and evaluation of data; access to articles, theses and databases; research models and types; basic paradigms in scientific research; quantitative and qualitative research designs; sampling in qualitative research, data collection, data analysis; validity and safety in qualitative research; reviewing, evaluating and presenting articles or thesis; preparing a research report in accordance with research principles and ethics; action research in education.

19	Contribution of the Course to Professional Development:	This course is based on TYYÇ At the information level, 2-Has knowledge about the nature of the information, its source, limits, accuracy, reliability and evaluation of its validity. 3-Discusses the methods related to the production of scientific knowledge. At the skills level 1-Uses advanced information sources in the field. 2-Conceptualizes the events and facts related to the field, examines them with scientific methods and techniques, interprets and evaluates the data. 3-Defines and analyzes problems related to the field, and develops solutions based on evidence and research. Competence level Competencies-Competence to Work Independently and to Take Responsibility 1-Takes responsibility in individual and group work and fulfills the task effectively. 3-Takes responsibility individually and as a team member to solve complex problems encountered and unforeseen in practice. Competencies-Learning Competence 1-Critically evaluates the acquired knowledge and skills. Competencies-Communication and Social Competencies 5-Shares his thoughts and solutions to problems with experts and non-experts by supporting them with quantitative and qualitative data. 7-Uses information and communication technologies at the advanced level of the European Computer Driving License. According to the development of basic field competencies and the

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preparation	13	2.00	26.00
Homeworks	1	35.00	35.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	1.00	1.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			92.00
Total work load/ 30 hr			3.03
ECTS Credit of the Course			3.00

B4 level B4.1, B4.2. and B.4.4 qualifications C2.2 at the C2 level. AND C2.4. your qualifications It contributes to the development of C4.6 at C4 level.

20	Learning Outcomes:	
	1	The student discusses the problems in educational research.
	3	The Student knows research strategies and design types.
		qualitative research.
	6	The Student analyzes research.
	8	
	9	
	10	

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	What is information? Source of information What is Science?	

2	Stages of the History of Science Characteristics and characteristics of science Types of Scientific Knowledge: Case, Hypothesis, Theory, Law Science Paradigm Relation	
3	Definition of Scientific Method Scientific Method Stages Basic characteristics of scientific method Basic assumptions on which scientific method is based Basic Concepts in Scientific Research Definition and Characteristics of Research Research Types Origins of research Epistemological foundations of research	
4	 204/5000 Research problem, universe, sample and changing concepts Determination of research problem Determination of the research topic Choosing the research problem Development of Sub-Problems Types of problems	
5	Research problem, universe, sample and changing concepts Determination of research problem Determination of the research topic Choosing the research problem Development of Sub-Problems Types of problems	
6	Bilimsel Araştırma Yaklaşımları Nicel Araştırma Yaklaşımları Nitel Araştırma Yaklaşımı Nitel ve Nicel Araştırma Yaklaşımlarının karşılaştırılması 146/5000 Scientific Research Approaches Quantitative Research Approaches Qualitative Research Approach Comparison of Qualitative and Quantitative Research Approaches	
7	Methods used in researches and their classification Research methods 1) Descriptive research: screening, special case, developmental research method, comparative method 2) Interpretative research: Ethnographic research method, special case study, researcher teacher method (action), phenomonographic	
8	Methods used in researches and their classification Research methods 1) Descriptive research: screening, special case, developmental research method, comparative method 2) Interpretative research: Ethnographic research method, special case study, researcher teacher method (action), phenomonographic	

9	Methods used in researches and their classification Analytical research, Document analysis, historical research method Experimental research, full experimental method, quasi-experimental method, simple experimental method.	
10	299/5000 Methods used in researches and their classification 1) Mixed investigations: Descriptive, Exploratory / explorer, triangulation, embedded, 2) Didactical engineering Data collection, analysis and presentation Data collection sources Secondary data collection sources Literature review	
11	Data collection, analysis and presentation Meta analysis Difference between literature review and metaanalysis Primary data sources Interview Interview types Observation Types of observation	
12	Analysis of qualitative data Descriptive analysis Content analysis Qualitative data analysis checklist Survey method Question types in surveys Survey validity Reliability of tests used in surveys Survey form features Data obtained from daily studies Researcher's diary Log of the sample	
13	Validity, Reliability and Validity in research Reliability in research Data tables and graphical representation Editing the data Chart types	
14	Concepts of Scientific Ethics	
22	Textbooks, References and/or Other Materials:	Clark, V.P. & Creswell, J. W. (2009). Understand Çepni, S. (2014) Araştırma ve Proje Çalışmalarına Giriş. Celepler Matbaacılık. Metin, M. Ed. (2014) Kuramdan Uygulamaya Eğitimde Bilimsel Araştırma Yöntemleri. Pegem Yayıncılık Karasar, N. (2014) Bilimsel Araştırma Yöntemi. Nobel Yayıncılık. Sönmez, V. Ve Alacapınar, F.G. (2013) Örneklendirilmiş Bilimsel Araştırma Yöntemleri. Anı Yayıncılık. Doğan, M. (2013) Bilim ve Teknoloji Tarihi. Anı yayıncılık Kalaycı, Ş. Ed. (2006) SPSS Uygulamalı çok değişkenli istatistik teknikleri. Asil Yayın Dağıtım Can, A. (2014) SPSS ile Bilimsel Araştırma Sürecinde Nicel Veri Analizi. Pegem Yayıncılık. Şencan, H. (2005) Sosyal ve Davranışsal Ölçümlerde Güvenirlik ve Geçerlilik. Seçkin Yayıncılık Arseven, A. D. (1994). Alan Araştırma Yöntemi. Ikeler-Teknikler- Örnekler. Ankara: Gül Yayınevi. Aziz, A. (1994). Araştırma Yöntemleri - Teknikleri ve İletişim. Ankara: Turhan Kitabevi

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Kaptan, S. (1995). Bilimsel Araştırma ve İstatistik Teknikleri. Ankara: Gazi Üniversitesi Gazi Eğitim Fakültesi Eğitim Bilimleri Bölümü
Beşevler-Ankara.
Karasar, N. (2000). Araştırmalarda Rapor Hazırlama. Onuncu basım. Ankara: Nobel Yayıncılık
Karasar, N. (1998). Bilimsel Araştırma Yöntemi: Kavramlar, İlkeler, Teknikler. Sekizinci basım. Ankara: Nobel Yayıncılık.
Kuş Saillard, E. (2008). NVIVO 8 İle Nitel Araştırma Projeleri. Ankara: Anı Yayıncılık.
Kuş, E. (2003). Nicel –Nitel Araştırma Teknikleri . Ankara: Anı Yayıncılık
Kartal, M. (2006) Bilimsel Araştırmalarda Hipotez testleri Ankara: Nobel Yayıncılık
Timur, M. ve Çağıltay, F. (2008). Proje hazırlama tekniği Ankara: Nobel Yayıncılık
Kağıtçıbaşı, Ç. (1976). "Ölçme ve Ölçekleme," Toplum Bilimlerinde Araştırma ve Yöntem. Der.: Ruşen Keleş. Ankara: TODAİE
Yayınları.
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Bogdan, R.C., & Biklen, S. K. (1992). Qualitative research for education: An introduction to theory and methods. Needham Heights,
MA: Allyn and Bacon.
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Patton, M. Q. (1990). Qualitative evaluation and research methods. Newbury Park, CA: Sage Publication.
Strauss, A., & Corbin, J. (1990). Basics of qualitative research: Grounded theory, procedures and techniques, Thousand Oaks, CA:
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connection. Washington, DC: COSMOS Cooperation.
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23	Assesment

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	15.00
Quiz	0	0.00
Home work-project	1	25.00
Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00

Total	100.00
Measurement and Evaluation Techniques Used in the Course	Lecture, Discussion, Individual Teaching, Project method and question-answer, case study, homework techniques are applied in the teaching of the course. In the measurement and evaluation of the course, 1 homework, 1 midterm, 1 project and 1 final exam are applied. The project given in the form of a research proposal is evaluated with rubrics. The success at the end of the evaluation is made in the form of relative evaluation.

24	**ECTS / WORK LOAD TABLE**

25	**CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS**															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	1	5	1	1	5	1	1	1	5	2	1	1	1	1	1	1
ÖK2	1	5	1	5	1	1	1	1	1	1	1	1	1	1	5	1
ÖK3	1	5	1	5	1	1	1	1	1	1	1	1	1	1	5	1
ÖK4	1	5	5	1	5	1	1	1	1	5	1	1	1	1	1	1
ÖK5	1	5	1	5	1	1	1	1	1	1	1	1	1	1	5	1
ÖK6	1	4	1	1	5	1	1	1	4	5	1	1	1	1	5	1
ÖK7	1	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**			**3 Medium**			**4 High**			**5 Very High**				