

METHOD AND STATISTICS IN EXPERIMENTAL RESEARCH

1	Course Title:	METHOD AND STATISTICS IN EXPERIMENTAL RESEARCH	
2	Course Code:	PSI5102	
3	Type of Course:	Compulsory	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	9.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:		
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Dr. Öğr. Üyesi HAYRİYE GÜLEÇ PAP	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	Hasan Gürkan Tekman tekman@uludag.edu.tr 224 294 1686	
17	Website:		
18	Objective of the Course:	Students should become competent about design of experimental research and the use of statistical techniques especially relevant to analyzing experimental data	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To master basic concepts of experimental design
		2	To understand threats to experimental validity and how to deal with them
		3	To understand the fundamentals of analysis of variance
		4	To be able to conduct and interpret within participants, between participants, and mixed analyses of variance
		5	To be able to produce written reports of results of analyses of variance
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21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	
1	Scientific research and observation		
2	Experimental method		
3	Research ethics and the structure of a research article		
4	Internal validity in experiments		

5	External validity in experiments	
6	Statistical hypothesis testing	
7	Between participants one-way ANOVA	
8	Between participants factorial ANOVA	
9	ANCOVA	
10	Within participants ANOVA	
11	Within participants factorial ANOVA	
12	Mixed factorial ANOVA	
13	MANOVA with multiple dependent variables	
14	Post hoc tests of MANOVA, discriminant analysis	

22	Textbooks, References and/or Other Materials:	Field, A. (2014). Discovering statistics using SPSS, 4th ed. London: Sage. Kalaycı, Ş., derleyen (2010). SPSS uygulamalı çok değişkenli istatistik teknikleri, 5. baskı. Ankara: Asil Yayın Dağıtım Ltd. Kantowitz, B. H., Roediger, H. L. III, & Elmes, D. G. (2013). Deneyisel Psikoloji, 9. basım (çev. N. Er ve Y. A. Duyan). Ankara: Nobel.
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23	Assesment	
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TERM LEARNING ACTIVITIES		NUMBER	WEIGHT		
Midterm Exam		0	0.00		
Activities		Number		Duration (hour)	Total Work Load (hour)
Final Exam/Theoretical		1	40.00	3.00	42.00
Total		4	100.00		
Practicals/Labs		0	0.00	0.00	0.00
Contribution of Term (Year) Learning Activities to Self study and preparation		0	0.00	10.00	140.00
Homeworks		3	15.00	15.00	45.00
Projects		0	0.00	0.00	0.00
Total		4	100.00		
Field Studies		0	0.00	0.00	0.00
Measurement and Evaluation Techniques Used in the Midterm exams		0	0.00	0.00	0.00
Others		0	0.00	0.00	0.00
Final Exams		1	50.00	50.00	50.00
Total Work Load					277.00
Total work load/ 30 hr					9.23
ECTS Credit of the Course					9.00

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	0	0	3	5	5	3	0	0	0	3	0	0	0	0	0	0
ÖK2	0	0	3	5	5	3	0	0	0	3	0	0	0	0	0	0
ÖK3	0	0	3	5	5	3	0	0	0	3	0	0	0	0	0	0
ÖK4	0	0	3	5	5	3	0	0	0	3	0	0	0	0	0	0

ÖK5	0	0	3	5	5	3	0	0	0	3	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contrib ution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			