ELECTRICAL MEASUREMENT TECHNIQUES

1	Course Title:	ELECTRICAL MEASUREMENT TECHNIQUES
2	Course Code:	EEM4104
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Öğr. Gör. Dr. ERDEM ÖZÜTÜRK
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	E-posta:ozuturk@uludag.edu.tr Tel: (224) 294 2021 Adres: Elektronik Mühendisliği Bölümü 1. Kat, No:111
17	Website:	
18	Objective of the Course:	To give fundamentals of measurement principles, techniques and instrumentation. To ensure that the student can make or conduct measurements accurately and can design basic measurement instruments. To improve the student's measurement experience.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Ability to apply theoretical and practical knowledge for modeling and solving engineering problems in the field of electrical measurement technique
	2	Ability to solve, formulate and identify complex engineering problems encountered in the field of electrical measurement technique by selecting the appropriate analysis and modeling methods .
	3	Ability to design complex system in electrical measurement under realistic constraints and conditions by applying modern design methods
	4	Ability to develope, select and use modern techniques and tools for electrical measurement technique.
	5	Ability to interpret the results and collect the data for analysing engineering problems in the field of electrical measurement.
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21	Course Content:	
	Course Content:	

Week	Theoretical	Practice
1	The Principles of Measurement and Instrumentation	
2	The Principles of Measurement and Instrumentation	
3	The Principles of Measurement and Instrumentation	
4	DC Current Measurement 1. Experiment	
5	DC Current Measurement 2. Experiment	
6	DC Current Measurement 3. Experiment	
7	DC Current Measurement 4. Experiment	
8	1. Midterm Exam + Review of Past Lecturers	
9	DC Current Measurement	
10	AC Current measurement 5. Experiment	
11	AC Current measurement 6. Experiment	
12	[illegible]	
13	[illegible]	
14	Problem solving	
22	Textbooks, References and/or Other Materials:	1. Pastacı, H., Elektrik ve Elektronik Ölçmeleri, Yıldız Üniversitesi Mühendislik Fakültesi, İstanbul, 1988. 2. Pastacı, H., Elektronik Ölçmeler (Problemler, Modern Ölçme Teknikleri), Yıldız Teknik Üniversitesi, İstanbul, 1996. 3. Pastacı, H., Elektronik Ölçmeler, Yıldız Üniversitesi Mühendislik Fakültesi, İstanbul, 1992. 4. Pastacı, H., Abbasoğlu, A.B., Dijital Ölçmeler, Yıldız Üniversitesi Mühendislik Fakültesi, İstanbul, 1992. 5. Bouwens, A., J., Digital Instrumentation, McGraw Hill, 1986.
23	Assessment	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	2.00	28.00
Self-study and preperation	14	3.00	42.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	20.00	40.00
Others	0	0.00	0.00
Final Exams	1	27.00	27.00
Total Work Load			165.00
Total work load/ 30 hr			5.50
ECTS Credit of the Course			4.00

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Midterm Exam	2	50.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00
Contribution of Final Exam to Success Grade		50.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

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	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
ÖK5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	**1 very low**		**2 low**		**3 Medium**		**4 High**			**5 Very High**						