Fizik Bölümü / PHYSICS /

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-2009	Basic Elektronics Laboratoty	0.00	4.00	0.00	2.00	4.00

Course Detail

Course Language	:	Turkish
Qualification Degree	:	Bachelor
Course Type	:	Compulsory
Preconditions	:	Not
Objectives of the Course	:	This course is prepared to make laboratory exercises of the basic electronic course.
Course Contents	:	This course is prepared to make laboratory exercises of the basic electronic course. Paralel to The Basic Electronic course there are two basic part for this course: DC circuits and AC circuits. In DC part Ohm's law, kirchhoff examples and using oscilloscope, in AC part the AC signal analysis, the RC, RL and RLC circuit analysis and filters are worked.
Recommended or Required Reading	:	Basic Electronic Laboratory Booklet
Planned Learning Activities and Teaching Methods	:	Lecture, laboratory, practices
Recommended Optional Programme Components	:	-
Course Instructors	:	Arş. Gör. Dr. Naci Erkan
Instructor's Assistants	:	Ress. Ass. Naci ERKAN
Presentation Of Course	:	Laboratory

Course Outcomes

Upon the completion of this course a student :

1 Seting up, analyzing and executing of DC circuits

2 Seting up, analyzing and executing of AC circuits.

3 Using of an oscilloscope, multimeter, function generator and others.

4 It is possible to be able to practice of the knowledge learned by technical books.

5 Responsibility of student as a person and as a member of a group could be gained about to solve any problem of physics.

6 Learning documentation of any work by a report study

Preconditions

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Weekly Contents

	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week			*Graphics		
2.Week			*Measurement and evaluation		
3.Week			*Error analysis		
4.Week			*Presentation of experimental devices		
5.Week			*Resistors in DC current and Kirchhoff's laws		
6.Week			*Thevenin circuit theorem in DC current		
7.Week			*The use of an osciloscope -1		
8.Week			*The use of an osciloscope -2		
9.Week			*AC circuit practice by using resistors, capacitors and inductors.		
10.Week			*RC – RL and band pass filters		
11.Week			*RC – RL and band pass filters		
12.Week			*Serial RLC filters		
13.Week			*Make-up		
14.Week			*Reminding		

Assesment Methods %

1 Vize : 40.000

2 Final : 60.000

ECTS Workload

Activities	Count	Time(Hour)	Sum of Workload
Class Hours (14 weeks)	14	4.00	56.00

Activities	Count	Time(Hour)	Sum of Workload
Homework	3	3.00	9.00
Final Exam Preparation	1	20.00	20.00
Report Writing	7	5.00	35.00
		Total :	120.00
		Sum of Workload / 30 (Hour) :	4
		ECTS :	4.00

Program And OutcomeRelation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O. 24
L.O. 1	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3
L.O. 2	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3
L.O. 3	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3
L.O. 4	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3
L.O. 5	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	2	4	3
L.O. 6	5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3

Ders/Program Çıktıları İlişkisi

P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15	P.O. 16	P.O. 17	P.O. 18	P.O. 19	P.O. 20	P.O. 21	P.O. 22	P.O. 23	P.O. 24	P.O. 2
5	3	4	4	3	5	5	5	2	5	2	3	4	3	5	5	2	4	5	2	3	3	4	3	5