

Fizik Bölümü / PHYSICS /						
Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-3015	Analog Electronic	3.00	0.00	0.00	3.00	6.00
Course Detail						
<b>Course Language</b>	: Turkish					
<b>Qualification Degree</b>	: Bachelor					
<b>Course Type</b>	: Optional					
<b>Preconditions</b>	: Not					
<b>Objectives of the Course</b>	: The aim of this course is to help students learn of active circuit devices, semiconductor circuit devices and their applications.					
<b>Course Contents</b>	: Active Circuit Devices, Semiconductor and Diodes, Diode Applications, Bipolar Junction Transistors, DC Biasing-BJT's, AC Analysis of BJT's, Field-Effect Transistors (FETs), FET Biasing, Mid-Term Exam, FET Amplifiers, Comparison od BJT's and FETs, Operational Amplifiers, Op-Amp Applications, Power Amplifiers, Final Exam					
<b>Recommended or Required Reading</b>	: Robert L Boylestad, 2006, Electronic Devices & Circuit Theory, Dorling Kindersley (india) Pvt Ltd. Balbir Kumar, 2007, Electronic Devices And Circuits, Prentice-Hall Harun Bayram,1996, Temel Elektronik Harun Bayram Yayınları					
<b>Planned Learning Activities and Teaching Methods</b>	: Midterm (40) final (% 60)					
<b>Recommended Optional Programme Components</b>	: Knowledge of office programs are important					
<b>Instructors</b>	: Prof. Dr. Hüseyin Çavuş					
<b>Instructor's Assistants</b>	: Non					
<b>Presentation Of Course</b>	: Face to face					

Course Outcomes	
<b>Upon the completion of this course a student :</b>	
1 1) interpret the active circuit devices	
2 2) identify semiconductor materials.	
3 3) analyse diodes and their types.	
4 4) investigate the transistors and their types.	
5 5) identify op-amps and their types.	
6 6) identify power amplifiers.	

Preconditions						
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Weekly Contents					
	Teorical	Practice	Laboratory	Preparation Info	Teaching Methods
1.Week	*Active Circuit Devices	*Active Circuit Devices			*Oral lectures,Homeworks,Practise
2.Week	*Semiconductor and Diodes	*Semiconductor and Diodes			*Oral lectures,Homeworks,Practise
3.Week	*Diode applications	*Diode applications			*Oral lectures,Homeworks,Practise
4.Week	*Bipolar Junction Transistors	*Bipolar Junction Transistors			*Oral lectures,Homeworks,Practise
5.Week	*DC Biasing-BJT's	*DC Biasing-BJT's			*Oral lectures,Homeworks,Practise
6.Week	*AC Analysis of BJT's	*AC Analysis of BJT's			*Oral lectures,Homeworks,Practise
7.Week	*Field-Effect Transistors (FETs)	*Field-Effect Transistors (FETs)			*Oral lectures,Homeworks,Practise
8.Week	*FET Biasing	*FET Biasing			*Oral lectures,Homeworks,Practise
9.Week	*FET Amplifiers	*FET Amplifiers			*Oral lectures,Homeworks,Practise
10.Week	*Comparison od BJT's and FETs	*Comparison od BJT's and FETs			*Oral lectures,Homeworks,Practise
11.Week	*Operational Amplifiers	*Operational Amplifiers			*Oral lectures,Homeworks,Practise
12.Week	*Op-Amp Applications	*Op-Amp Applications			*Oral lectures,Homeworks,Practise
13.Week	*Power Amplifiers	*Power Amplifiers			*Oral lectures,Homeworks,Practise
14.Week	*Power Amplifiers	*Power Amplifiers			*Oral lectures,Homeworks,Practise

Assesment Methods %	
1 Vize : 40.000	
2 Final : 60.000	

ECTS Workload			
Activities	Count	Time(Hour)	Sum of Workload
Vize	1	2.00	2.00
Attending lectures	14	4.00	56.00
Individual study before lecture	14	1.00	14.00
Individual study after lecture	14	1.00	14.00

