## Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering

## **Electrical-Electronics Engineering Department**

2023-2024 Fall Semester

Syl	lal	ous

Type Required  Credit/ECTS 4/4  Hour per Week 4  Level/Year Undergraduate/2  Semester spring  Classroom A103  Content BJT and Mosfet characterisation. Dc characteristics odf opertational amplifier. A characteristic of transistor circuits. Operation of Rectifiers and Regulators.  Prerequisites None  Textbooks Primary  J. David Irwin, Basic Engineering Circuit Analysis, 10th ed. John Wiley Supplementary  J.W. Nilsson, S.A. Riedel, Electric Circuits, 9th. Ed., Prentice Hall.  Objectives • To get hand on experience on electronic components.  • To be able to lay out, wire and troubleshoot electronic circuits
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<ul> <li>To be able to carry out basic measurements</li> </ul>
Course Outcomes In this course you will be able to:
CO1 Use ammeter, voltmeter and oscilloscope
CO2 Carry out the experiments by following the instructions given in laboratory manual
CO3 Analyze and comment on the experimental data
CO4 Prepare reports including the measurement results, their analysis and comments

### **Weekly Schedule of Topics**

W	Topic
1	Introducing the laboratory
2	Oscilloscop usage
3-5	Characterisation of BJT and MOSFET.
6-8	Transistor Amplifier Circuits
9-10	Linear Applications of OPAMPS
11-12	Non-linear Applications of OPAMPS
13	Logic Gates and Binary Circuits:
14	PSPICE presentation.

#### **Contribution to Program Outcomes\***

	P01	P02	P03	PO4	P05	P06	P07	P08	P09	PO10	P011
CO1	5	5	1	5	0	5	1	3	1	3	0
CO2	5	5	1	4	0	5	4	3	4	3	0
CO3	5	5	3	5	2	5	1	3	1	3	0
CO4	5	4	3	5	0	5	2	3	1	4	0

# Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering **Electrical-Electronics Engineering Department**2023-2024 Fall Semester

\* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

Requirements	Basic knowledge of Electromagnetic Field Theory					
Course Policy	Be in the class on time.					
	<ul> <li>English should alway</li> </ul>	s be used to commu	nicate with one another.			
	<ul> <li>At least 70% attendance is required, otherwise a grade of DZ will be assigned.</li> </ul>					
Cheating & Plagiarism	<ul> <li>Copying or letting someone copy your work on exams, assignments, or reports is cheating.</li> <li>Cutting and pasting text, figures and tables from web sources or any other electronic source is plagiarism.</li> <li>The consequence of academic dishonesty is to receive a grade of FF for the course.</li> </ul>					
Evaluation	Midterm	40%	is to receive a grade of 11 for the course.			
Lvaiuation	Final Exam	60%				
	Total	100%				
Instructor						
Name/Surname	Fikri Serdar Gökhan	Email	serdar.gökhan@alanya.edu.tr			
Room	209	Office Hours	W 11.30-12.30   F 13.30-14.30			

Prepared by Akın Uslu on june 10th, 2024.