



Çanakkale Onsekiz Mart University

Education Information System

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Course Information

COURSE INFORMATION

Course Title	Code	Semester	L+U Hour	Credits	ECTS
Analog Electronic	FZK363	5. Semester	2 + 2	3.0	7.0

Prerequisites	None
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Language of Instruction	English
Course Level	Bachelor's Degree (First Cycle)
Course Type	Elective
Mode of delivery	Face to face
Course Coordinator	Assoc. Prof. Dr. Hüseyin ÇAVUŞ
Instructors	
Assistants	
Course Objectives	The aim of this course is to help students learn of active circuit devices, semiconductor circuit devices and their applications.
Course Content	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
Course Learning Outcomes	<ol style="list-style-type: none"> 1) interpret the active circuit devices 2) identify semiconductor materials. 3) analyse diodes and their types. 4) investigate the transistors and their types. 5) identify op-amps and their types. 6) identify power amplifiers.

WEEKLY COURSE CONTENT

Week	Topics	Teaching and Learning Methods and Techniques	Study Materials
1. Week	Active Circuit Devices	Oral lectures, Homeworks, Practise	
2. Week	Semiconductor and Diodes	Oral lectures, Homeworks, Practise	
3. Week	Diode applications	Oral lectures, Homeworks, Practise	
4. Week	Bipolar Junction Transistors	Oral lectures, Homeworks, Practise	

Quick Access

Physics

- Qualification Awarded
- Level of Qualification
- Qualification Requirements and Regulations
- Specific Admission Requirements
- Recognition of Prior Learning
- Profile of the Program
- Program Key Learning Outcomes
- Occupational Profile of Graduates
- Access to Further Studies
- Course Structure & Credits
- Exam Regulations & Assessment & Grading
- Graduation Requirements
- Mode of Study
- Programme Director(or Equivalent)
- Evaluation Questionnaire
- TYYÇ

Course Information

- Course Information
- Weekly Course Content
- Resources
- Course Category
- CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES
- ECTS credits and course workload

5. Week	DC Biasing-BJT's	Oral lectures,Homeworks,Practise	
6. Week	AC Analysis of BJT's	Oral lectures,Homeworks,Practise	
7. Week	Field-Effect Transistors (FET's)	Oral lectures,Homeworks,Practise	
8. Week	FET Biasing	Oral lectures,Homeworks,Practise	
9. Week	FET Amplifiers	Oral lectures,Homeworks,Practise	
10. Week	BJT ve JFET lerin karşılaştırılması	Oral lectures,Homeworks,Practise	
11. Week	Operational Amplifiers	Oral lectures,Homeworks,Practise	
12. Week	Op-Amp Applications	Oral lectures,Homeworks,Practise	
13. Week	Power Amplifiers	Oral lectures,Homeworks,Practise	
14. Week	Power Amplifiers	Oral lectures,Homeworks,Practise	
15. Week	General Review	Oral Lectures	
16. Week	Final Exam	Written Exam	

RESOURCES

Recommended Sources
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

ASSESSMENT

Measurement and Evaluation Methods and Techniques
40% Mid Term Exam 60% Final Exam

COURSE CATEGORY

Course Category	Percentage
Support Courses	% 100

CONTRIBUTION OF COURSE LEARNING OUTCOMES TO PROGRAMME OUTCOMES

Programme Outcomes	Contribution Level	DK1	DK2	DK3	DK4	DK5	DK6
<u>PY1</u>	4	4	4	4	4	4	4
<u>PY2</u>	3	3	3	3	3	3	3
<u>PY3</u>	4	4	4	4	4	4	4
<u>PY4</u>	4	4	4	4	4	4	4
<u>PY5</u>	1	1	1	1	1	1	1
<u>PY6</u>	1	1	1	1	1	1	1
<u>PY7</u>	4	4	4	4	4	4	4
<u>PY8</u>	1	1	1	1	1	1	1

<u>PY9</u>	4	4	4	4	4	4	4
<u>PY10</u>	1	1	1	1	1	1	1
<u>PY11</u>	1	1	1	1	1	1	1
<u>PY12</u>	1	1	1	1	1	1	1
<u>PY13</u>	1	1	1	1	1	1	1
<u>PY14</u>	3	3	3	3	3	3	3
<u>PY15</u>	4	4	4	4	4	4	4

*DK = Course's Contribution.

	0	1	2	3	4	5
Level of contribution	None	Very Low	Low	Fair	High	Very High

ECTS CREDITS AND COURSE WORKLOAD

Event	Quantity	Duration (Hour)	Total Workload (Hour)
Class Hours (14 weeks)	14	4	56
Presentation/Seminar	2	2	4
Final Exam Preparation	1	22	22
Mid Term Exam Preparation	1	15	15
Assignment 1	1	10	10
Further Study	14	2	28
Mid Term Exam 1	1	2	2
Final Exam	1	2	2
Research&Project	2	8	16
Preliminary Study	14	1	14
Assignment 2	1	10	10
Total Workload			179
Total Workload / 25.5 (s)			7.02
ECTS Credit of the Course			7