

1. Course Name:	<b>Electronic Circuits I</b>
2. Course Code:	MIE21202
3. Semester / Year:	<b>Semester</b>
4. Description Preparation Date:	<b>9-12-2025</b>
5. Available Attendance Forms:	<b>Weekly (Theory: 2 hours, Practically: 2 hours)</b>
6. Number of Credit Hours (Total) / Number of Units (Total)	Total Hour:125 Total Units:5
7. Course administrator's name (mention all, if more than one name)	Assist. Lec. Huda Abbas Fadhel
8. Course Objectives	<p>Course Objective</p> <p>1. The graduate gets scientific and applied skills of electronic circuits.</p> <p>2. The graduated students will gain the ability of knowledge of different parts of electronic circuits.</p> <p>3. Development and training the engineering technical staffs on the electronic circuits.</p> <p>4. Preparation the research and studies to improve and develop the action of electronic circuits.</p> <p>5. Prepare application engineers in technical and electronic engineering.</p> <p>6. Put the proposals and alternatives for the electronic devices.</p>
9. Teaching and Learning Strategies	<p>Strategies</p> <p>The main strategy will be encourage active participation and engagement of students through activities such as group discussions, hands-on experiments, problem-solving tasks, and case studies. This approach promotes critical thinking, collaboration, and knowledge application and encourages students to explore and discover knowledge through inquiry and investigation. Pose open-ended questions or problem scenarios that require learners to research, analyze, and draw conclusions independently.</p>

## Course Description Form

## 1. Course Structure

Week	Hours	Required Learning Outcomes	Learning method	Evaluation method
1	Th.:2 Pr.:2	Introduction -	Lec. &lab	Exam
2	Th.:2 Pr.:2	Semiconductors materials	Lect. &lab	Quiz
3	Th.:2 Pr.:2	Diode Configurations .	Lect. & lab	H.W
4	Th.:2 Pr.:2	Diode Networks with a dc and ac Source	Lect. &lab	Exam
5	Th.:2 Pr.:2	Zener Diodes	Lect. & lab	Quiz
6	Th.:2 Pr.:2	Bipolar junction transistor	Lect. & lab	H.W
7	Th.:2 Pr.:2	Mid-term Exam	Lect. &lab	Exam
8	Th.:2 Pr.:2	DC biasing BJTs .	Lect. & lab	Quiz
9	Th.:2 Pr.:2	Multiple BJT Networks.	Lect. &lab	H.W
10	Th.:2 Pr.:2	Field effect transistor and MOSFET.	Lect. &lab	Exam
11	Th.:2 Pr.:2	Depletion-Type MOSFET	Lect. &.lab	Quiz
12	Th.:2 Pr.:2	Enhancement type MOSFET .	Lect. &lab	H.W
13	Th.:2 Pr.:2	BJT AC Analysis	Lect. & Lab	Exam
14	Th.:2 Pr.:2	BJT Transistor Modeling and Effect of RL a Rs	Lect. & Lab	Quiz
15	Th.:2 Pr.:2	Preparatory week before final exam	Lect. & Lab	H.W

## 2. Course Evaluation

The grade distribution is as follows: Assignment 8% , Lab 8% , Quizzes 16%,Report 8% ,Midterm Exam 10% , Final exam: 50%

## 3. Learning and Teaching Resources

Required textbooks (curricular books any)	1. Electronic devices and circuit theory 11th edition, Robert L. Boylestad , Louis Nashelsky
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	<a href="https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering">https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering</a>