

## Course Description Form

<b>1. Course Name:</b>					
Electronic II					
<b>2. Course Code:</b>					
WBM-22-07					
<b>3. Semester / Year:</b>					
Semester					
<b>4. Description Preparation Date:</b>					
2024-03-19					
<b>5. Available Attendance Forms:</b>					
presence in the classroom					
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>					
105 Hours / 7 Units					
<b>7. Course administrator's name (mention all, if more than one name)</b>					
Name: Ali Mohammed					
Email: ali.mohammed@uowa.edu.iq					
<b>8. Course Objectives</b>					
<b>Course Objectives</b>		<p>The study of electronics aims to identify and understand all basic electronic components by understanding their internal structure and the materials from which they are made. This will help students understand how to work with them, their functions, how to connect them, and the practical applications in which these components can be utilized. Students will also understand the mathematical equations and relationships specific to each electronic component by thoroughly analyzing the component and providing an appropriate description. Students will also explore these components in the laboratory and observe their behavior.</p>			
<b>9. Teaching and Learning Strategies</b>					
<b>Strategy</b>		<p>1- Enabling the student to demonstrate a true understanding of electronic components during the academic phase.</p> <p>2- Understand the rules and foundations upon which each electronic component is built.</p> <p>3- Learn and understand the methods of connecting electronic components together to perform various tasks.</p> <p>4- Learn about the applications of electronics and its importance in practical life.</p> <p>5- Understand the mathematical ratios and relationships for each electronic component.</p>			
<b>10. Course Structure</b>					
<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>

1 +2+3	4	JFET Transistor	Chemical structure of transistor, types, properties, mathematical equations, examples, practical applications	Lectures presented in PDF format	Daily exams + homework assignments + monthly exams
4+5	4	MOSFET Transistor	Chemical structure of transistor, its types, properties, mathematical equations, examples, practical applications	Lectures presented in PDF format	Daily exams homework assignments monthly exams
6+7	4	AC analysis	AC analysis with transistors	Lectures presented in PDF format	Daily exams homework assignments monthly exams
8+9+10	4	Transistor responses	The response of each type of transistor to frequencies and the differences between them.	Lectures presented in PDF format	Daily exams homework assignments monthly exams
10 +11+12	4	Multistage transistor	Analysis of circuits containing more than one transistor	Lectures presented in PDF format	Daily exams homework assignments monthly
13+14+15	4	Integrated circuits	Introduction to integrated circuits, their components, and how they work	Lectures presented in PDF format	Daily exams homework assignments monthly

#### 11.Course Evaluation

- ☑ Daily exams with practical and scientific questions.
- ☑ Participation scores for difficult competition questions among students
- ☑ Establishing grades for environmental duties and the reports assigned to them
- ☑ Semester exams for the curriculum, in addition to the mid-year exam and final exam

#### 12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Boylestad, R.L., and Nashelsky, L., Electronic Devices circuit Theory, 9th Ed., Pearson Education, Inc., 2013.
Main references (sources)	<ul style="list-style-type: none"> <li>• College library to obtain additional sources for the academic curricula</li> <li>• Check scientific websites to see recent developments in the subject</li> </ul>

Recommended books and references (scientific journals, reports...)	All reputable scientific journals that are related to the broad concept mathematical theories and their results
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