



Ministry of Higher Education and
Scientific Research - Iraq
Al-Mustaqbal University
College of Engineering Technique
Department of Electrical Engineering Technique

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	ENGINEERING WORKSHOPS		Module Delivery
Module Type	Basic		Theory Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input checked="" type="checkbox"/> Seminar
Module Code			
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	1	Semester of Delivery	
Administering Department	DEPARTMENT OF ELECTRICAL ENGINEERING TECHNIQUES	College	AL-MUSTAQBAL UNIVERSITY
Module Leader	Jaber Ghaib Talib	e-mail	jabar.talib@uomus.edu.iq
Module Leader's Acad. Title	doctor	Module Leader's Qualification	doctor
Module Tutor		e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	1/09/2025	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none">1. Students will learn occupational safety in workshops and how to acts in the event of an electric shock.2. Student will learn types of electrical conductors and methods of electrical installation.3. Student will learn how use the contactor in some practical application.4. Studying types of capacitors, inductances, semiconductors.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.</p> <ol style="list-style-type: none">1. Principles of industrial security and occupational safety within the electricity workshops.2. Dimensional measuring devices (MICROMETER).3. characteristics of good installations, Types of electrical installations.4. Practical electrical installation.5. What is the electric coils, The different types of capacitor6. Examine the types of semiconductors.7. Instruct the student on how to design electronic circuits.
Indicative Contents المحتويات الإرشادية	<p>Indicative content includes the following.</p> <p><u>Part A – Occupational Safety</u> Learn about safety principles in electrical shops and how to act when a shock occurs.[6hr]</p> <p><u>Part B – Tools</u> Learn about tools used in workshops and how to use a micrometer to measure the diameter of conductors.[6hr]</p> <p><u>Part-C- Electrical installations[18hr]</u> Methods of electrical installations and how to connect the contactors</p> <p><u>Part-D-Electronics:[15hr]</u> Types of capacitors , semiconductors (Diodes, transistors), Electronic circuits.</p>

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	<ol style="list-style-type: none">1- Understanding: Occupational safety, methods of installations.2-Practical experience: Installation, micrometers, electronic circuits.
-------------------	--

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	77	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	5.1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	6	10% (10)	5 and 10	LO #1, #2 and #7
	Assignments	6	10% (10)	2 and 12	LO #3, #4 and #6
	Projects / Lab.	20	10% (10)	Continuous	All
	Report	8	10% (10)	2 and 12	LO #3, #4 and #6, #7
Summative assessment	Midterm Exam	2hr	10% (10)	8	LO #1 - #7
	Final Exam	3hr	50% (50)	15	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Principles of industrial security and occupational safety within the electricity workshops, general safety rules and protection against electric shock.
Week 2	Lab 2: Learn about the tools used in electrical work shops.
Week 3	Lab 3: Dimensional measuring devices (MICROMETER)
Week 4	Lab 4: Electrical installations, Systems conductors insulated, How to equip the house with electric power.
Week 5	Lab 5: characteristics of good installations, Types of electrical installations, Bus-Bar
Week 6	Lab 6: Practical electrical installation(one way switch control lamp, one way switch control two lamps series, one way switch control two lamps parallel).

Week 7	Lab 7: Practical electrical installation (two ways switch control parallel lamps, two lamps parallel with reciprocating control with two way switch, Staircase lamp)
Week 8	Lab 8: : Means of controlling motors (Contactor) The idea of its work and its construction.
Week 9	Lab 9 : Using contactor to operate a three phase motor.
Week 10	Lab 10: Types of fuses used in electrical circuits, the current that each types bears..
Week 11	Lab 11: What is the electric coil, how does it work and what are its types according to the type of cores.
Week 12	Lab 12: The different types of capacitor in terms of the type of insulator used between the plates of the capacitor, the voltage that the capacitor bears, reading capacitor values using different methods.
Week 13	Lab 13: Examine the types of semiconductors (diode, transistor, etc) and knowing the unemployed ones.
Week 14	Lab 14: Instruct the student on how to design electronic circuits on printed board and install electronic components on it (simple circuit)
Week 15	Lab 15: Review.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts		Yes
Recommended Texts		No
Websites	https://uotechnology.edu.iq/training/units/kahrabaa/kahrabaminhaj/minhaj1.html http	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.