



Ministry of Higher Education and Scientific Research -
Al-Furat Al-Awsat Technical University
Technical College /Al-Mussaib
Department of Electrical Engineering techniques



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	ATU٢٣٠١٥		
ECTS Credits	٥		
SWL (hr/sem)	١٢٥		
Module Level	١	Semester of Delivery	١
Administering Department	DEPARTMENT OF ELECTRICAL ENGINEERING TECHNIQUES	College	Northern Technical University Engineering Technical College/Mosul
Module Leader	Adnan Nief	e-mail	
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	Master
Module Tutor		e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	١/٠٦/٢٠٢٣	Version Number	١,٠

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"> Students will learn occupational safety in workshops and how to acts in the event of an electric shock. Student will learn types of electrical conductors and methods of electrical installation. Student will learn how use the contactor in some practical application. Studying types of capacitors, inductances, semiconductors.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>Important: Write at least ٦ Learning Outcomes, better to be equal to the number of study weeks.</p> <ol style="list-style-type: none"> Principles of industrial security and occupational safety within the electricity workshops. Dimensional measuring devices (MICROMETER). characteristics of good installations, Types of electrical installations. Practical electrical installation. What is the electric coils, The different types of capacitor Examine the types of semiconductors. 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.[٦hr]</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.[٦hr]</p> <p><u>Part-C- Electrical installations[١٨hr]</u> Methods of electrical installations and how to connect the contactors</p> <p><u>Part-D-Electronics:[١٥hr]</u> Types of capacitors , semiconductors (Diodes, transistors), Electronic circuits.</p>

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<ol style="list-style-type: none"> Understanding: Occupational safety, methods of installations. Practical experience: Installation, micrometers, electronic circuits.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب ل ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	٤٨	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	٣,٢
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	٧٧	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	٥,١
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	١٢٥		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	٦	١٠٪ (١٠)	٥ and ١٠	LO #١, #٢ and V
	Assignments	٦	١٠٪ (١٠)	٢ and ١٢	LO #٣, #٤ and #٦
	Projects / Lab.	٢٠	١٠٪ (١٠)	Continuous	All
	Report	٨	١٠٪ (١٠)	٢ and ١٢	LO #٣, #٤ and #٦, #٧
Summative assessment	Midterm Exam	٢hr	١٠٪ (١٠)	٨	LO #١ - #٧
	Final Exam	٣hr	٥٠٪ (٥٠)	١٥	All
Total assessment			١٠٠٪ (١٠٠ Marks)		

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week ١	Lab ١: Principles of industrial security and occupational safety within the electricity workshops, general safety rules and protection against electric shock.
Week ٢	Lab ٢: Learn about the tools used in electrical work shops.
Week ٣	Lab ٣: Dimensional measuring devices (MICROMETER
Week ٤	Lab ٤: Electrical installations, Systems conductors insulated, How to equip the house with electric power.
Week ٥	Lab ٥: characteristics of good installations, Types of electrical installations, Bus-Bar
Week ٦	Lab ٦: Practical electrical installation(one way switch control lamp, one way switch control two lamps series, one way switch control two lamps parallel).

Week ٧	Lab ٧: Practical electrical installation (two ways switch control parallel lamps, two lamps parallel with reciprocating control with two way switch, Staircase lamp)
Week ٨	Lab ٨: : Means of controlling motors (Contactor) The idea of its work and its construction.
Week ٩	Lab ٩ : Using contactor to operate a three phase motor.
Week ١٠	Lab ١٠ : Types of fuses used in electrical circuits, the current that each types bears..
Week ١١	Lab ١١: What is the electric coil, how does it work and what are its types according to the type of cores.
Week ١٢	Lab ١٢: 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 ١٣	Lab ١٣: Examine the types of semiconductors (diode, transistor, etc) and knowing the unemployed ones.
Week ١٤	Lab ١٤: Instruct the student on how to design electronic circuits on printed board and install electronic components on it (simple circuit)
Week ١٥	Lab ١٥: 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 (٥٠ - ١٠٠)	A - Excellent	امتياز	٩٠ - ١٠٠	Outstanding Performance
	B - Very Good	جيد جدا	٨٠ - ٨٩	Above average with some errors
	C - Good	جيد	٧٠ - ٧٩	Sound work with notable errors
	D - Satisfactory	متوسط	٦٠ - ٦٩	Fair but with major shortcomings
	E - Sufficient	مقبول	٥٠ - ٥٩	Work meets minimum criteria
Fail Group (٠ - ٤٩)	FX – Fail	راسب (قيد المعالجة)	(٤٥-٤٩)	More work required but credit awarded
	F – Fail	راسب	(٠-٤٤)	Considerable amount of work required

Note: Marks Decimal places above or below .,0 will be rounded to the higher or lower full mark (for example a mark of 01,0 will be rounded to 00, whereas a mark of 01,1 will be rounded to 01. 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.