MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Engineering workshops			**Module Delivery**	
Module Type	B			☐ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	UOMU0206013				
ECTS Credits	6				
SWL (hr/sem)	150				
Module Level		1	**Semester of Delivery**		**1**
Administering Department		**Fuel and energy Engineering Techniques**	**College**	**Technical Engineering College- Al Mustaqbal university**	
Module Leader	**Mohsin Aleiwi Nasir**		**e-mail**	**mohsen-aleiwi@uomus.edu.iq**	
Module Leader's Acad. Title		**Lecturer assistant**	**Module Leader's Qualification**		**Msc. Mechanical engineering**
Module Tutor			**e-mail**		
Peer Reviewer Name			**e-mail**		
Scientific Committee Approval Date		15-6-2023	**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 Aims أهداف المادة الدراسية	The student will be able to: 1. Using measuring tools, Using different kinds of hand tools, Getting a hand intelligent by applying a machining and Industrial operations. 2. Alloying, Contents of alloying workshops, Alloying sands and characteristics and Additives for improvement – Metals melts, Method of casting – Sand mold shaping, and Heat treatment. 3. Tools and machinery in the carpentry workshop, fundamental principles and types of wood and application samples preparation 4. Modes of car motor operation, Fuel feed pump and Electrical spark transfer device. 5. Pistons in cylinder as motion transfer device to the front, back wheels.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowledge the different tools. Employed for surface preparation and methods of application correctly, Devices of measuring dimensions, Calipers, types and uses, Drill types and dimensions 2. Knowledge the measuring tools: Steel miler, Verner, Micrometer, Height & height gauge hand tools, Saws. 3. Knowledge the Hammers, Files, Scriber, Chisels, Taps and dies, Surface plate, Bench working. 4. Know the welding workshop content: Include recognition of tools, materials employed, Gas cylinder of oxy – Acetylene welding of surface – Electrical welding exercise and Welding spot. 5. Knowledge the Lathing Workshop content: lathe machine – Parts – Operation, Practice on longitudinal lathing – Making center – Puncturing, Making external teeth – Practice - Employing measuring tools–internal & external lath machining. 6. Knowledge the contents of alloying workshops. alloying sands and characteristics and Additives for improvement, metals melts, 7. Understanding the method of casting and Sand mold shaping 8. Understanding the Heat treatment. 9. Knowledge the carpentry tools. machinery in the carpentry workshop 10. Understanding the Fundamental principles and Types of wood and Knowledge the application samples preparation 11. Understanding the modes of car motor operation 12. Understanding the Fuel feed pump 13. Understanding the Electrical spark transfer device 14. Understanding the Pistons in cylinder as motion transfer device to the front, back wheels.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: • Tools: Include recognition of different tools. Employed for surface preparation and methods of application correctly, Devices of measuring dimensions, Calipers, types and uses, Drill types and dimensions. (6 hr). • Measuring Tools: Steel miler, Verner, Micrometer, Height & height gauge hand tools, Saws. Hammers, Files, Scriber, Chisels, Taps and dies, Surface plate, Bench working. (6 hr). • Welding Workshop: Include recognition of tools, materials employed (6hr) • Gas cylinder of oxy – Acetylene welding of surface – Electrical.welding exercise and Welding spot(12hr) • Lathing Workshop: lathe machine – Parts – Operation. (6hr)

	• Practice on longitudinal lathing – Making center – Puncturing, Making external teeth – Practice - Employing measuring tools–internal & external lath machining. (12hr) • Alloying, Contents of alloying workshops, Alloying sands and characteristics and Additives for improvement – Metals melts. (6 hr) • Method of casting, Sand mold shaping, and Heat treatment. (6hr) • Tools and machinery in the carpentry workshop. fundamental principles, Types of wood and application samples preparation(12hr) • Modes of car motor operation, Fuel feed pump and Electrical spark transfer device. (6hr) • Pistons in cylinder as motion transfer device to the front, back wheels.(6hr)

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Assessment is based on hand-in assignments, practical quizzes, reports, seminars, Practical testing.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	90	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	90	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	180		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	6	10% (10)	2, 5, 8, 11,13,15	
	Assignments	6	10% (10)	2, 5, 8, 11,13,15	
	Projects /	6	10% (10)	Continuous	
	Report	1	10% (10)	14	
Summative assessment	Midterm Exam	1 hr	10% (10)	7	
	Final Exam	1hr	50% (50)	15	
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1-2	1. Tools: Include recognition of different tools. Employed for surface preparation and methods of application correctly, 2. Devices of measuring dimensions, Calipers, types and uses, Drill types and dimensions. 3. Measuring Tools: Steel miler, Verner, Micrometer, Height & height gauge hand tools, Saws. Hammers, Files , Scriber , Chisels , Taps and dies , Surface plate , Bench working.
Week 3-5	1. Welding Workshop: Include recognition of tools-Materials employed 2. Gas cylinder of oxy – Acetylene welding of surface – Electrical 3. welding exercise 4. Welding spot.
Week 6-8	1. Lathing Workshop: lathe machine – Parts – Operation 2. Practice on longitudinal lathing – Making center – Puncturing 3. Making external teeth – Practice - Employing measuring tools– 4. Internal & external lath machining.
Week 9-11	Alloying workshop 1. Alloying and contents of alloying workshops 2. Alloying sands, characteristics and Additives for improvement – 3. Metals melts and Method of casting 4. Sand mold shaping, and Heat treatment.
Week 12-13	Carpentry workshop 1. Tools and machinery in the carpentry workshop 2. Fundamental principles and Types of wood 3. Application samples preparation

Week 14-15	Car workshop 1. Modes of car motor operation, 2. Fuel feed pump 3. Electrical spark transfer device. 4. 4. Pistons in cylinder as motion transfer device to the front, back wheels.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Practical training sheets	no
Recommended Texts		
Websites		

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.