	Ministry of Higher Education and Scientific Research - Iraq Al-Mustaqbal University College for engineering and technology Department of Biomedical Engineering	

MODULE DESCRIPTOR FORM
نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	Workshops			**Module Delivery**	
Module Type	**SUPLEMENT**			☐ **Practical**	
Module Code	**UOMU0102014**				
ECTS Credits	**8**				
SWL (hr/sem)	200				
Module Level	١		**Semester of Delivery**	1	
Administering Department	**Department of Chemical Engineering and Petroleum Industries**		**College**	**College of Engineering**	
Module Leader	Asst.lec Zaid Ghaith Al-jebouri		**e-mail**	Zaid.ghaith.mohammed@uomus.edu.iq	
Module Leader's Acad. Title	Assistant Lecture		**Module Leader's Qualification**	MSC.Petroleum engineering	
Module Tutor	Asst.lec Zaid Ghaith Al-jebouri				
Peer Reviewer Name			**e-mail**		
Review Committee Approval			**Version Number**		

Relation With Other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	Secondary School	**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	1-Preparing applied engineers in the field of engineering sciences who are distinguished by a high level of knowledge and technological creativity, in line with the strict standards adopted globally in quality assurance and academic accreditation of the corresponding engineering programs, while adhering to the ethics of the engineering profession. 2. Enable the student to know and understand work systems, risks, and the factors surrounding them. 3. Enable the student to know and understand theoretical principles in handicrafts and measurements.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- To familiarize the student with the vocabulary of occupational safety and its importance in the field of work. 2- Acquisition of the student's manual operation skills, for example (Filings and Tinsmith workshops), and mechanical operation skills, for example (Turning). 3- Acquisition of the student's mechanical forming skills, for example (Casting and Blacksmithing). 4- The student acquires basic engineering skills such as Welding, Carpentry, and Electrical installations that serve him in the professional field. 5- Enabling the student to operate the various machines and devices in mechanical operations and formation. ٦- Cooperative learning by working collectively.		
Indicative Contents المحتويات الإرشادية	1. Introducing the student to the basics of the art of turning and milling, types of cold working machines, the skill of dealing with them, choosing metals, operational tools, and methods of measurement and standardization 2. Introducing the student to the basics of the art of casting, hot forming, metal selection, method of working on casting furnaces and tools, and manufacturing casting molds 3. Familiarize students with the basics of cars and the systems they use, as well as maintenance, disassembly, and assembly processes. 4. Introducing students to the basics of household and industrial electrical appliances, the skill of using tools, and designing electrical circuits and		

	control panels 5. Introducing the student to the basics of the art of plumbing, leveling surfaces, the skill of using tools, manufacturing and installing geometric shapes, and methods of measurement and standardization 6. Introducing the student to the basics of the art of blacksmithing, cold and hot forming of metals, the method of hardening them, and the skills of dealing with hand tools, forming machines, and heating furnaces 7. Introducing the student to the basics of the art of filing and manual operation of metals with the help of manual, electrical, and mechanical tools, the skills of dealing with them, and the methods of measurement and standardization 8. Introducing the student to the basics of the art of welding, the installation and assembly of metals, the types of welding machines, the skills of dealing with them, the types of welding, and the methods of measurement and standardization Introducing the student to the basics of the art of carpentry and woodworking with the help of manual, electrical, and mechanical tools, the skills of dealing with them, and methods of measurement and standardization
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	6	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	0.46
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	200		

Module Evaluation تقييم المادة الدراسية					
As		**Time/Number**	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**				
	Assignments				**All**
	Projects / Practice	**Every 3 weeks**	**60%**	**Continuous**	
Summative assessment	**Midterm Exam**				
	Final Exam	**Every 3 weeks**	**40%**	**Continuous**	**All**
Total assessment			**100% (100 Marks)**		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	**Welding workshop.** **-Occupational safety and its importance in welding workshops.** **-Introduction to the basics of welding.** **-Electric arc exercise.** **-An exercise for welding straight lines in a circular motion (helical).**
Week 2	**Welding workshop** **- An exercise for welding straight lines with a crescent movement and other welding methods** **-Construction welding exercise.**
Week 3	**Welding workshop.** **-Welding two pieces together.** **-Written exam in practical exercises.**
Week 4	**Casting workshop** **-Occupational safety and its importance in plumbing workshops.** **-Introduction to the basics of metal casting.** **-Simple wooden disc exercise.** **Half workout.**
Week 5	**Casting workshop** **Wheel exercise.** **Pushing arm exercise.**
Week 6	**Casting workshop.** **-Complete pulley exercise.** **-Circular pole exercise.** **-Written exam in practical exercises.**
Week 7	**Blacksmith Workshop** **-Occupational safety and its importance in blacksmithing workshops.** **-Introduction to the Basics of Blacksmithing.** **- Barbell adjustment exercise.** **-Eight-star exercise.** **- Exercise forming the number eight in English.** **-Six formation exercises in English.**
Week 8	**Blacksmith Workshop** **-An exercise forming the number five in English.** **- Exercise forming the number nine in English.** **. -An exercise in forming an iron model in the form of a circle**
Week 9	**Blacksmith Workshop** **- S-shape exercise.** **- Air hammer hot barbell exercise.** **- Exercise to form a circle on an electric bending machine.** **- Exercising cold and hot ornament formation.**

	.- A written exam in practical exercises
Week 10	**Automotive Workshop** **-Occupational safety and its importance in car maintenance workshops.** **-An introduction to cars and their basic parts.** **-Parts of the engine, how it works, types of engines, and methods of classification.**
Week 11	**Automotive Workshop** **- Open the engine and identify the parts** **-Lubrication system** **-Cooling system.**
Week 12	**Automotive Workshop** **-The fuel system.** **-The old and new ignition circuits.** **-Written exam in practical exercises.**
Week 13	**Turning Workshop** **-Introduction to lathe machines and identifying their parts** **-Measuring tools and the use of an oven measuring instrument** **-Circular column lathing exercise on different diameters.**
Week 14	**Turning Workshop** **-Exercise using the pen (semicircular R) brackets.** **An exercise in making different angles using a pen (square + angle pen 55).**
Week 15	**Turning Workshop** **- Making shaft with different diameter exercises using (left and right pen)** **- Workout (Tube Connection).** **-Written exam in practical exercises.**

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Workshop technology and measurements, Ahmed Salem Al-Sabbagh,	yes

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

NB 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.

ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي