

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Workshops (II)		Module Delivery
Module Type	BASIC		<input type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ATU21021		
ECTS Credits	4		
SWL (hr/sem)	100		
Module Level	UG I	Semester of Delivery	
Administering Department	MET	College	TCM
Module Leader	Salam Obaid Dhahi	e-mail	obaid@atu.edu.iq
Module Leader's Acad. Title	Lecturer	Module Leader's Qualification	M.Sc
Module Tutor	Talib Alwan Hardan	e-mail	Talaalwan200@atu.edu.iq
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Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	ATU21011	Semester	1

Co-requisites module	None	Semester	
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Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	To teach the fundamentals of material science and properties of materials used in engineering applications.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1- Understanding of casting processes, including sand casting, investment casting, and die casting. 2- Proficiency in mold preparation, molten metal pouring, and post-casting processes. 3- Identification and resolution of common casting defects and adherence to safety guidelines. 4- Knowledge of carpentry tools, materials, and woodworking techniques. 5- Proficiency in measuring, marking, and cutting wood accurately. 6- Skills in wood component assembly, finishing methods, and interpretation of woodworking plans.
Indicative Contents المحتويات الإرشادية	Casting Workshop: <ol style="list-style-type: none"> 1. Gain a comprehensive understanding of casting processes, including sand casting, investment casting, and die casting, and their applications in various industries. 2. Demonstrate proficiency in preparing molds, including mold design, pattern making, and mold assembly, to ensure accurate casting production. 3. Acquire skills in melting and pouring molten metal into molds, controlling casting parameters such as temperature, pouring rate, and solidification time. 4. Understand and implement post-casting processes, including shakeout, cleaning, machining, and finishing, to achieve the desired quality and surface finish of cast components. 5. Identify and troubleshoot common casting defects, such as porosity, shrinkage, and misruns, and apply appropriate corrective measures. 6. Adhere to safety guidelines and practices throughout the casting process,

	<p>including handling molten metal, using protective equipment, and managing potential hazards.</p> <p>Carpentry Workshop:</p> <ol style="list-style-type: none"> 7. Develop foundational knowledge of carpentry tools, materials, and techniques used in woodworking projects. 8. Demonstrate proficiency in measuring, marking, and cutting wood accurately to specified dimensions. 9. Acquire skills in assembling and joining wood components using various techniques, such as butt joints, mortise and tenon joints, and dovetail joints. 10. Understand and apply different finishing methods, such as sanding, staining, and varnishing, to enhance the appearance and durability of woodwork. 11. Interpret and follow woodworking plans and blueprints to construct furniture, cabinets, or other wooden structures. 12. Follow safety protocols and practices, including proper handling of tools, usage of protective equipment, and awareness of potential hazards in the carpentry workshop.
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<p>Learning and Teaching Strategies</p> <p>استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.</p>

<p>Student Workload (SWL)</p> <p>الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا</p>			
<p>Structured SWL (h/sem)</p> <p>الحمل الدراسي المنتظم للطالب خلال الفصل</p>	<p>93</p>	<p>Structured SWL (h/w)</p> <p>الحمل الدراسي المنتظم للطالب أسبوعيا</p>	<p>6</p>

Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	7	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	1
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	0			
	Assignments	0			
	Projects / Lab.	15	10% (10)	Continuous	All
	Report	0			
Summative assessment	Midterm Exam	0			
	Final Exam	0			All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Workshop Syllabus)	
المنهاج الاسبوعي للورش الهندسية	
	Material Covered

Week 1-7	Casting workshop
Week 8-15	Carpentry workshop

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts		No
Recommended Texts		No
Websites	https://www.coursera.org/browse/physical-science-and-engineering/mechanical-engineering	

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.