

# MODULE DESCRIPTION FORM

## نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Drawings		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	ICE102		
ECTS Credits	2		
SWL (hr/sem)	45		
Module Level	1st	Semester of Delivery	
Administering Department	ICE	College	KHW
Module Leader	Muna Mustafa	e-mail	muna@kecbu.uobaghdad.edu.iq
Module Leader's Acad. Title	Assist. Lect.	Module Leader's Qualification	Msc.
Module Tutor	Nil	e-mail	Nil
Peer Reviewer Name	Nil	e-mail	Nil
Scientific Committee Approval Date	/06/2023	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

<b>Module Objectives</b> أهداف المادة الدراسية	<ol style="list-style-type: none"> <li>1. Learn how to use the AutoCAD program.</li> <li>2. Learn to draw 2D drawings using basic elements (line, circle, rectangular, ...etc.).</li> <li>3. Learn to modify, edit the 2D drawing (move, copy, mirror...etc.).</li> <li>4. Learn to add dimensions to the 2D drawings.</li> <li>5. Learn to draw 3D drawings using basic elements</li> <li>6. Learn to modify, edit the 3D drawing (move, copy, mirror...etc.).</li> <li>7. Learn to add dimensions to the 3D drawings.</li> </ol>
<b>Module Learning Outcomes</b> مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> <li>1. Understand fundamental of the AutoCAD drawings, engineering drawings.</li> <li>2. analyze and draw any engineering drawing using the facilities that the 2016 AutoCAD program produce such as using basic elements (line, circle, rectangular...etc.).</li> <li>3. Modify any drawing using the tools (move, copy, mirror, offset, array, etc.)</li> <li>4. after complete the 2D drawing the student could add the dimensions to the drawing.</li> <li>5. Design and draw any engineering drawing using any AutoCAD Program Version.</li> <li>6. Draw any drawing using different methods, techniques and facilities submitted by the AutoCAD program.</li> </ol>
<b>Indicative Contents</b> المحتويات الإرشادية	Indicative content includes the following. <u>Part A – 2D Drawings</u> <ol style="list-style-type: none"> <li>1. analyze and draw any engineering drawing 2D using the facilities that the AutoCAD program produce such as using basic elements (line, circle, rectangular...etc.). [15 hrs]</li> <li>2. Modify any drawing using the tools (move, copy, mirror, offset, array, etc.) [12 hrs]</li> <li>3. add the dimensions to the drawing [3 hrs]</li> </ol> <u>Part B – 3D drawings</u> <ol style="list-style-type: none"> <li>1. analyze and draw any engineering drawing 3D using the facilities that the AutoCAD program produce such as using basic elements [6 hrs]</li> <li>2. Learn to modify, edit the 3D drawing (move, copy, mirror...etc.). [6 hrs]</li> <li>3. Learn to add dimensions to the 3D drawings. [3 hrs]</li> </ol>

## Learning and Teaching Strategies

### استراتيجيات التعلم والتعليم

<b>Strategies</b>	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.
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Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
<b>Structured SWL (h/sem)</b> الحمل الدراسي المنتظم للطالب خلال الفصل	45	<b>Structured SWL (h/w)</b> الحمل الدراسي المنتظم للطالب أسبوعيا	3
<b>Unstructured SWL (h/sem)</b> الحمل الدراسي غير المنتظم للطالب خلال الفصل	15	<b>Unstructured SWL (h/w)</b> الحمل الدراسي غير المنتظم للطالب أسبوعيا	1
<b>Total SWL (h/sem)</b> الحمل الدراسي الكلي للطالب خلال الفصل	<b>60</b>		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
<b>Total assessment</b>			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
<b>Week 1</b>	<b>Ch1: Introduction</b> 1. Launching AutoCAD 2. Workspaces 3. Status Bar and Command Prompt 4. AutoCAD Commands 5. Dynamic Input
<b>Week 2</b>	<b>Ch2: Drawing Aids</b> 1. Open Existing Drawings 2. Creating a New Drawing 3. Saving Drawings 4. Exiting AutoCAD

<b>Week 3</b>	<ul style="list-style-type: none"> <li>5. SNAP Command</li> <li>6. Grid Command</li> <li>7. Running Object Snaps</li> <li>8. Osnap Settings</li> <li>9. UNITS Command</li> <li>10. Drawing Limits</li> </ul>
<b>Week 4</b>	<p><b>Ch3: 2D Draw Commands</b></p> <ul style="list-style-type: none"> <li>1. Line Command</li> <li>2. Cartesian Coordinate System</li> <li>3. Orthogonal Lines</li> <li>4. Polar Tracking</li> </ul>
<b>Week 5</b>	<ul style="list-style-type: none"> <li>5. Circles</li> <li>6. Arc Command</li> <li>7. Pline Command</li> <li>8. Explode Command</li> <li>9. Polygon</li> </ul>
<b>Week 6</b>	<ul style="list-style-type: none"> <li>10. Rectangle</li> <li>11. Spline</li> <li>12. Donut</li> <li>13. Ellipse</li> </ul>
<b>Week 7</b>	Mid-term Exam
<b>Week 8</b>	<p><b>Ch4: 2D Edit Commands</b></p> <ul style="list-style-type: none"> <li>1. The Move Command</li> <li>2. The Copy Command</li> <li>3. The Offset Command</li> <li>4. The Extend Command</li> <li>5. Trim Command</li> </ul>
<b>Week 9</b>	<ul style="list-style-type: none"> <li>6. The Erase Command</li> <li>7. The Zoom Command</li> <li>8. The Pan Command</li> <li>9. The Mirror Command</li> <li>10. The Rotate Command</li> <li>11. The Scale Command</li> </ul>
<b>Week 10</b>	<ul style="list-style-type: none"> <li>12. The Break Command</li> <li>13. The Stretch Command</li> <li>14. The Explode Command</li> </ul>
<b>Week 11</b>	<ul style="list-style-type: none"> <li>15. The Fillet Command</li> <li>16. The Chamfer Command</li> </ul>

	17. The Array Command 18. The Lengthen Command
Week 12	Ch4: Dimensions
Week 13	Ch5: 3 D Draw Commands
Week 14	Ch6: 3D Edit Commands
Week 15	Ch7: 3D Dimensions
Week 16	Preparatory week before the final Exam

<b>Delivery Plan (Weekly Lab. Syllabus)</b> المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction -Launching AutoCAD-
Week 2	Lab 2: Draw 2D drawings – sheet 1 – (line) examples
Week 3	Lab 3: Draw 2D drawings- sheet 2 – (line + circle) examples
Week 4	Lab 4: Draw 2D drawings – sheet 3 –( line + circle + arc )+ edit (fillet) examples
Week 5	Lab 5: Draw 2D drawings – sheet 4 –( line + circle + arc )+ edit (trim ) + ....examples
Week 6	Lab 6: Draw 3D drawings – sheet 5-3d examples
Week 7	Lab 7: Draw 3D drawings – sheet 6-3d examples

<b>Learning and Teaching Resources</b> مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Text book 1: James A. Leach, “AutoCad 2002 companion”, 2003. Text book 2: 2D_AutoCAD Text book Text book 3: 3D_AutoCAD Text book	Yes
Recommended Texts	Text book 4: AutoCAD 2D Tutorials, AutoCAD 2013, By Kristen S. Kurland, 2012.	No
Websites	<a href="https://www.autodesk.com.au/campaigns/autocad-tutorials">https://www.autodesk.com.au/campaigns/autocad-tutorials</a>	

## Grading Scheme

### مخطط الدرجات

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