MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information

معلومات المادة الدراسية

Module Title	**ENGINEERING DRAWING**	Module Delivery	
Module Type	**Basic**	Theory Lecture ☒ Lab ☐ Tutorial ☐ Practical ☒ Seminar	
Module Code	**ATU٢٣٠١٣**		
ECTS Credits	**٥**		
SWL (hr/sem)	**١٢٥**		
Module Level	١	**Semester of Delivery**	١
Administering Department	Electrical Engineering Techniques	**College**	Al-Furat Al-Awsat Technical University Technical College /Al-Mussaib
Module Leader	AMER ADIL	**e-mail**	AMER.MAHMOOD@atu.edu.iq
Module Leader's Acad. Title	Asst. Lecturer	**Module Leader's Qualification**	M.Sc.
Module Tutor	None	**e-mail**	E-mail
Peer Reviewer Name	None	**e-mail**	E-mail
Scientific Committee Approval Date	٠١/٠٦/٢٠٢٣	**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	١. To explore further and confirm the reference of engineering drawing to the varied design applications found in engineering and technology in general. ٢. To further the ability to communicate information by engineering drawings. ٣. To develop knowledge to two dimensional (٢D) computer-aided drawing(CAD). n Further and/or Higher Education who are required to learn how to use the computer-aided design (CAD) software package AutoCAD®
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	١. Learning types of engineering lines and their uses and how to draw ٢. Drawing geometric shapes such as square, rectangular, parallelogram and circle ٣.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: ● Part A – AutoCAD interface Setup, save, limits, grid, object snap and ortho mode [٣ hrs.] ● Part B- Coordinate method Direct distance method, Absolute coordinate, Relative coordinate, Polar coordinate[٣hrs] ● Part C Draw menu Line, polyline, rectangle, arc, circle, ellipse and hatch [١٢hrs] ● Part D Modify and Properties menu Copy, move, offset, erase, extend, trim and array, line shape and line size [٩ hrs.] ● Part D Projection Front, side and top ortho projections [٦ hrs.] ● Part E stereoscopic shapes Method for drawing stereoscopic shapes[٦hrs] Revision problem classes [٨ hrs.]

	Learning and Teaching Strategies
	استراتيجيات التعلم والتعليم
Strategies	Drawing engineering is an engineers language and consider a means to communicate between them and designers 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 type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	٦٣	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	٤,٢
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	٦٢	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	٤,١٣
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	٤	١٠٪ (١٠)	٥ and ١٠	LO #١, #٢
	Assignments	٨	١٠٪ (١٠)	٢ and ١٢	LO #٣
	Projects / Lab.	١٨	١٠٪ (١٠)	Continuous	All
	Report	٠	١٠٪ (١٠)		
Summative assessment	Midterm Exam	٢hr	١٠٪ (١٠)	٧	LO #١ - ٣
	Final Exam	٣hr	٥٠٪ (٥٠)	١٦	All
Total assessment			١٠٠٪ (١٠٠ Marks)		

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
١	Introducing AutoCAD
٢	Drawing settings
٣,٤,٥,٦	Drawing Tools: Line, Circle, Arc, Ellipse, Donut, Polygon, Rectangle, Point, Multiline, Pline, Spline, Xline.
٧,٨, ٩	Modify Tools Erase, Undo, Redo, Explode, Move, Copy, Rotate, Mirror, Array, Align, Scale, Stretch, Lengthen, Trim, Extend, Break, Join, Chamfer, Fillet.
١٠	Display Control: Zoom, Pan, Redraw, Clean Screen.

١١	Dimension - Linear, Aligned, Radius, Diameter, Center Mark, Angle, Arc length, Continuous, Baseline, Tolerance, Dimension Space, Dimension Break, Jogged radius, Ordinate dimensions.
١٢	Annotation Tools Text, Style, Mtext, Scale text, Spell,
١٣	Hatching Objects
١٤	Exercises drawing
١٥	Final Examination

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	ENGINEERING GRAPHICS FOR First Year Student Specialized Scientific Programs (SSP) Faculty of Engineering Alexandria University Prepared By Assoc. Prof. / Raafat El sayed Shaker Ismail Introduction to AutoCAD ٢٠١١. ٢D and ٣D Design by Alf Yarwood	Yes
Recommended Texts	DC Electrical Circuit Analysis: A Practical Approach Copyright Year: ٢٠٢٠, dissidents.	No
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering	

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 ٠,٥ will be rounded to the higher or lower full mark (for example a mark of ٥٤,٥ will be rounded to ٥٥, whereas a mark of ٥٤,٤ will be rounded to ٥٤. 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.