## The University of Jordan School of Engineering



Department	Course Name	<b>Course Number</b>	Semester
Mechanical Engineering	Engineering Drawing and Descriptive Geometry	0904131	Spring 2020/2021

## **2005 Course Catalog Description**

Lettering, Geometric construction, Sketching and shape description. Basic descriptive geometry, Developments and intersections. Axonometric and oblique drawings, Multi-view projection, Principal views, Conventional practice, and sectional views. Dimensioning techniques. Parallel: Introduction to computer drawing, Drawing aids, Geometrical construction, and the commands of text, editing, plotting, sections, layers, pictorial views, and dimensioning. Auxiliary views. This course aims at developing the skills needed for documenting designs using drawings and for performing graphical analysis of two-dimensional and three-dimensional problems. Manual and computer aided methods of graphical analysis and communication are covered.

computer aid	dea methods c	or graphical analysis and communication	n are covered.	
		Text Books		
		Text book 1	Text book 2	
Title		Engineering Design Graphics	The fundamentals of Engineering Drawing and	
			Graphic Technology	
Author(s)		James Earle	Thomas E. French and Charles J. Vierck	
Publisher,	Year,	Prentice Hall, 2003, 11 <sup>th</sup> Edition	McGraw Hill Book Company, 2010, 4th Edition	
Edition				
		References		
Books	1. Engine	ering Graphics with AutoCAD 2014, James D. Bethune.		
	2. Getting	Started, AutoCAD 2014, Autodesk.		
	3. Graphic Science and Design, French, Vierck and Foster.			
	4. Descrip	tive Geometry, Pare, Loving, Hill and I	Pare, Prentice Hall, 1996.	
Journals	Engineering Design Graphics Journal, <a href="http://www.edgj.org/index.php/EDGJ">http://www.edgj.org/index.php/EDGJ</a>			
Internet	https://www.autodesk.com/education/free-software/autocad			
links	http://home	nepages.cae.wisc.edu/~me231/online_notes/descriptive_geometry/prob/problems.htm		
		Prerequisites		
Prerequisite	es by topic			
Prerequisite	es by course			
Co-requisite	es by course			
Prerequisite for		Machine Drawing (0904233)		

	Topics Covered		
Week	Topics	Chapter in Text	
1	Manual: Introduction to Engineering Graphics and Lettering	<i>Textbook</i> (10, 11)	
	ACAD: Starting AutoCAD and Setting Parameters		
2	Manual: Geometrical Constructions	Textbook (12)	
	ACAD: Object Construction and Drawing Commands		
3	Manual: Sketching and Line Techniques	Textbook (13)	
	ACAD: Editing and Organization		
4-5	Manual: Multi-view Drawings and Orthographic Projection	Textbook (14)	
	ACAD: Text, P-lines, Layers and Hatching		
6	Manual: Engineering Sections and Hatching	Textbook (16)	
	ACAD: Getting Information and Inquires		
7-8	Manual: Pictorial Drawings and Dimensioning	<i>Textbook</i> (20, 25)	
	ACAD: Dimensioning		
9	Manual: Introduction to Descriptive Geometry and Successive Auxiliary Views	<i>Textbook</i> (27, 28)	
	ACAD: Introduction to 3D modeling		
10-11	Manual: Oblique Lines, Planes and Applications	Textbook (26)	
	ACAD: UCS, Wireframe and Surface Modelling		
	ACAD: Solid Editing, Slice and Dimensioning		
12	Manual: Perpendicularity and Angularity	Textbook (26)	
	ACAD: Construction of 3D-Orthograhic Views		

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7	<ol> <li>Appropriate mastery of the knowledge, techniques, skills, and modern tools of the discipline.</li> <li>An ability to apply creativity in the design of systems, components, or appropriate to progra objectives.</li> <li>Develop an understanding of the design process and the fundamental methods necessary to do creative.</li> </ol>					to program		
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Midter	m Auto	CAD Exam						15%
Manua	al Quizz	æs						5%
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## **TECHNICAL DRAWING TOOLS**

## THE INSTRUMENTS USED IN ENGINEERING DRAWING ARE:

$\checkmark$	DRAWING SHEETS.

- ✓ TWO PENCILS: (0.5 HB) AND (0.35 OR 0.5 2H).
- ✓ T-SQAURE: (60cm)
- ✓ COMPASS.
- ✓ SHARPNER FOR COMPASS LEAD.
- ✓ TRIANGLES.
- ✓ PROTRACTOR.
- ✓ CIRCLES TEMPLATE
- ✓ ERASER.
- ✓ Erasing Shield Template
- ✓ Scotch Paper





















