

University:	Basrah University
College:	Education for Pure Science
Department:	Computer Science
Stage:	third Year
Lecturer Name:	Nada Ali Noori
Academic Status:	Assistant Teacher
Qualification:	MSc Computer Science
Place of work:	Basrah University

Course Weekly Outline

Course Instructor	Nada Ali Noori				
Email	asnsn5@gmail.com				
Title	Lecturer				
Course Coordinator	-				
Course Objective	Students learn the basics of drawing on the computer, where a ready-made software library is available, Graphics, that enables the student to write programs to draw any shape quickly and easily. To use well-known algorithms in mathematics and convert them into programs and then color and shape drawings. He also learns algorithms for transformations on graphic shapes such as displacement, standardization, rotation, reflection and shearing, single and compound, and also learn how to add some necessary texts with drawing in addition to learning how to draw any mathematical function. 3D graphics.				
Course Description					
Textbook	1-V.Scott Gordon &John Clevenger ,Computer Graphics Programming in OpenGL,2020 2-Donald Hearn & M. Pauline Baker, computer Graphics second edition, Prentice Hall international Edition 1994 3-Anton's opengl 4 tutorial (kindle edition) Anton gerdelan computer-graphics, 2014.				
References					
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
Course Assessment	2Test	Yes	yes	yes	Yes
General Notes					

Instructor Signature:

Dean Signature:

Republic of Iraq
The Ministry of Higher Education
& Scientific Research



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week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1		Introduction to computer drawing and its uses	Practical training on how to use the drawing library in programs	
2		Number routines to prepare the computer for drawing	Programs about drawing unit settings	
3		Draw points and straight lines	Programming exercises on drawing a point and using it to draw straight lines	
4		Algorithms for drawing straight lines	Write programs to draw straight lines based on algorithms	
5		Draw 2D shapes	Learn how to draw 2D shapes using only straight lines	
6		Drawing circles, their sectors and arcs	Learn how to draw circles using algorithms used in	
7			mathematics	
8		Using circles, arcs, and sectors to draw 2D shapes	Using circles, arcs, and sectors to draw 2D shapes	
9		Drawing Ellipses and Its Sectors	Writing a program for drawing ellipses and sectors	
10				
11		Using ellipses and segments in drawing two-	Software applications in using ellipses and segments in	
12		dimensional shapes	drawing two-dimensional shapes	

	Half-year holiday	
13	Using line formations in drawing	Software applications in using line formations in drawing things
14	Use colors to color lines and shapes to fill in drawings	Writing an app Use colors to color lines and shapes to fill in drawings
15	Transformations to graphical formats	Offset is a writing application for drawing and shifting any shape
16	Transformations to graphical formats, standardization	Writing application programs to draw any shape and then enlarge or reduce it in specific proportions
17	Transformations to graphical formats. Rotation	Writing application programs to draw any shape and rotate it in a direction or counterclockwise direction
18	Transformations on graphics, reflection and clipping	Writing application programs to draw any shape and how its image is reflected in the mirror according to its position in relation to the coordinates and to see the effects of cutting
19	Compound conversions, compound standardization	Writing application programs to draw any shape and then enlarge it or reduce it using compound standardization and differentiate it from singular standardization
20	Compound transformations, compound rotations	Applications of Rotating Shapes Using Complex Transformations and Comparing Singular
21	Complex transformations, complex reflection and shear	Write notations about compound reflection and shear
22	Writing texts in graphic style	Use texts to stretch the drawing as illustrative media with illustrations
23	Moving pictures	Draw shapes and things and make them move to simulate reality
24	Drawing Mathematical Functions	to learn