Republic of Iraq
The Ministry of Higher Education
& Scientific Research

University: Anbar
College: CS &IT
Department: Computer Science
Stage: Third
Instructor name: Ismail Taha Ahmed
Academic status: Assist Prof
Qualification: PhD
Place of work: University of Anbar

Course Weekly Outline

Course Name: Semester Two

Course Instructor	Ismail Taha Ahmed				
E-mail	Ismail.taha@uoanbar.edu.iq				
Title	Computer Graphics II				
Course Coordinator					
Course Objective	Students will learn about the stages of the graphics pipeline, which involves transforming 3D models into 2D images. This includes understanding concepts such as modeling, transformation, projection, rasterization, and rendering.				
Course Description	The course aims to introduce students to the fundamental concepts of computer graphics with 3-D, including the modeling, transformation, projection, rasterization, and rendering.				
Textbook	Shirley, Peter, Michael Ashikhmin, Steve Marschner. *Fundamentals of Computer Graphics*. 3rd ed. A K Peters/CRC Press, 2009. ISBN: 9781568814698				
References	- Computer graphics mathematics first step, P. A. Egerto and W. S. Hall, 1998. - Visual Basic game Programming for teens, Jonathan S. Harboor, 2005 - Computer Graphics using OpenGL; 2nd edn; F. S. Hill Jr; Pearson Education, 2003.				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	25%	15%	5%	5%	50%
General Notes					

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Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	Week 1	Introduction to Computer Graphics and 3D Rendering	Lecture Programs	
2	Week 2	Translation, scaling transformations in 3D	Lecture Programs	
3	Week 3	Rotation, shearing, and reflection transformations in 3D	Lecture Programs	
4	Week 4	Implementing 3D transformations in graphics software	Lecture Programs	
5	Week 5	Projection Transformation : Parallel Projection	Lecture Programs	
6	Week 6	Projection Transformation : Perspective Projection	Lecture Programs	
7	Week 7	**Mid-term Exam**	Lecture Programs	
8	Week 8	Viewport and window transformations	Lecture Programs	
9	Week 9	Introduction to Clipping: Point Clipping	-	
10	Week 10	Line Clipping	Lecture Programs	
11	Week 11	Cohen–Sutherland Algorithm	Lecture Programs	
12	Week 12	Line Intersections and Clipping	Lecture Programs	
13	Week 13	Polygon Clipping	Lecture Programs	
14	Week 14	Convex and Concave Window	Lecture Programs	
15	Week 15	**Final Exam**	-	

Instructor Signature:

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