

CCS3501 Computer Graphics**COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
CCS2401 & EBA2204	3	6	2	2	0	3

COURSE AIM

- Understand algorithms design
- Learn line, circle, and polygon rendering algorithms.
- Use and code with OpenGL library.
- Understand the mathematics and computer graphics concepts, apply programming skills needed to develop graphics applications.

COURSE WEEKLY CONTENTS

- 1 Introduction, history, and survey of computer graphics applications
- 2 Overview of graphics systems: raster and random scan display.
- 3 DDA line drawing algorithm
- 4 Bresenham's line drawing algorithm
- 5 Mid-point circle/ ellipse drawing algorithms
- 6 Drawing free curves: Bezier and spline technologies
- 7 2D transformations part 1
- 8 2D transformations part 2
- 9 Viewing transformation part 1
- 10 Viewing transformation part 2
- 11 Color models
- 12 Projects and Presentations
- 13 Filling Algorithms part 1
- 14 Filling Algorithms part 2
- 15 Animation

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	←		30	MARKS		→	30
8 to 12	←		20	MARKS		→	20
1 to 15	←		10	MARKS		→	10
16 or 17	40	Final					40

REFERENCES

Textbook D. Hearn, M.P. Baker, and Carithers, Computer Graphics with Open GL Version, Pearson