

Course Outlines

Course Details:

Course Code : CSE-421 Credit hours: 3.0
Course Title : Computer Graphics
Program : CSE / CSIT
Semester : Fall 2016
Course Teacher : Nushrat Jahan Bubly
Lecturer, Dept. of CSE

Course Assessment:

The assessment components for evaluation of students are as follows:

Item/Activity	Marks (%)
Work Sheet (including class attendance and class tests)	25%
Assignment/ Presentation	10%
Mid-Term Test	25%
Final Examination	40%
Total	100%

Course Contents:

Lectures	Contents (Each lecture will be 1.5 hours duration)
Lecture-1	Introduction Computer Graphics
Lecture-2	Definition of image, pixel, graphics
Lecture -3	Definition of rendering, modeling
Lecture -4	2D computer graphics
Lecture -5	Vector Graphics, Raster Graphics
	Assignment/Presentation
Lecture -6	Color CRT Monitor
Lecture -7	Raster Scan System
Lecture -8	Three-Dimensional Viewing Devices
Lecture -9	Stereoscopic and Virtual-Reality Systems
	Class Test
Lecture -10	Graphics Workstations
Lecture -11	Scan Conversion
Lecture -12	Scan Converting a point
	Class Test

	Mid-Term
Lecture -13	Physics defined and relationships to other fields
Lecture -14	Scan Converting a line
Lecture -15	Direct use of the Line Equation
Lecture -16	DDA Algorithm
	Assignment/Presentation
Lecture -17	Bresenham's Line Algorithm
Lecture -18	Scan-Converting a Circle
	Class Test
Lecture -19	Midpoint Circle Algorithm
Lecture -20	Midpoint circle algorithm
Lecture -21	Pattern Recognition
Lecture -22	Pattern Recognition Flowchart
Lecture -23	Geometric Continuity Condition
	Class Test
Lecture -24	Overview
	Final Examination
Textbooks:	<i>Computer Graphics</i> <i>Donald Hearn and M. Pauline Baker</i>