Course Type	Course Code	Name of Course		Т	Р	Credit
DE	CSD404	Computer Graphics	3	0	0	9

Course Objective

The course content will cover salient topics of Computer Graphics with a blend of theory and applications with an objective to enable the students to learn the subject and to apply wheresoever required.

Learning Outcomes

The successful students are expected to conceptualize the subject and feel comfortable to implement them as per requirement

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Introduction, application areas, graphics systems, devices	4	The students will learn the basic purpose, application areas and basic devices related to graphics
2	Object representation techniques, curve and surface interpolation techniques,	8	The students will learn the techniques to generate the basic graphics primitives
3	Modeling transformation, viewing, clipping, graphics rendering, scan conversion,	6	The students will learn the basic techniques of object and scene representation in a realistic way
4	Illumination and shading models, color models	5	The students will learn to work with color light and surface shading
5	Hidden surface removal	8	The students will pick up techniques to depict visible surface hiding the obscured surfaces of the objects in dynamically changing scenes
6	Animation. texture mapping and other discrete techniques	4	the students will learn more pratical concepts of animation and texture mapping for more realistic graphics applications
7	Hierarchical modeling, fractal geometry	3	The students will learn more advanced topics
8	Input and interaction, graphics programming	4	The students will learn concepts related to interactive graphics programming

Text Books:

- 1. Computer Graphics: Donald Baker and M. Pauline Hearn, Prentice Hall
- 2. Computer Graphics: Principles and Practice James D. Foley, Andries Van Dam, John F. Hughes, Steven K. Feiner, Addison_Wesley

Reference Books:

1. Fundamentals of Computer Graphics, 4th Edition: Peter Shirley, Steve Marschner Publisher: A K Peters/CRC Press