

TECNIA INSTITUTE OF ADVANCED STUDIES

Grade 'A' Institute

Department of Information, Communication & Technology

Master Of Computer Applications (MCA)

Scheme and Syllabus (w.e.f. Academic Session 2020-21 onwards)

Course Code: MCA-211

Course Name: Computer Graphics

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LEARNING OBJECTIVES

In this course, the learners will be able to develop expertise related to the following:-

1. Basic building blocks and core concepts of computer graphics.
2. Typical graphics pipeline.
3. Theoretical, mathematical foundation and practical aspects of different graphics algorithms.
4. Fundamental concepts of animation and its related technologies to design interactive graphics applications

PRE-REQUISITES

Basic Mathematical Concepts

COURSE OUTCOMES (COs)

After completion of this course, the learners will be able to:

CO#	Detailed Statement of the CO	BT Level	Mapping to PO #
CO1	Demonstrate graphics drawings with respect to graphics primitives.	BTL2	PO1, PO2
CO2	Explain the mathematical concepts of different graphics algorithms	BTL2	PO1, PO2, PO3
CO3	Apply 2D & 3D transformation concepts to represent images with different dimensions and shapes.	BTL3	PO1, PO2, PO3, PO5
CO4	Analyze and evaluate the concepts of projections and shading methods to obtain realistic images.	BTL5	PO1, PO2, PO3, PO4, PO5
	Develop scenes with different clipping methods and transform it to graphics display device	BTL6	PO1, PO2, PO3, PO4, PO5, PO6, PO10
	Develop interactive applications using different computer graphics algorithms and animation effects	BTL6	PO1, PO2, PO3, PO4, PO5, PO7, PO8, PO9, PO10, PO11