

Part A: Introduction			
Program : <b>Certificate</b>		Class: <b>B.Sc.—IT IV Semester</b>	Year <b>2024</b>
		Session: <b>2024-25</b>	
1.	Course Code	<b>ITSE-2</b>	
2.	Course Title	<b>Multimedia Technology</b>	
3.	Course type	<b>Discipline Specific Elective ( DSE )</b>	
4.	Pre-requisite if any	As per Govt. Norms / Institutional Scheme	
5.	Course Learning Outcomes (CLO)	After successfully completing this course, the students will be able to: <ul style="list-style-type: none"> <li>• Learning : Multimedia, media &amp; data stream,</li> <li>• Practice Hybrid Coding, JPEG, MPEG Text Compression</li> <li>• Components of Multimedia</li> <li>• Introduction to Virtual reality &amp; Virtual reality Systems,</li> </ul>	
6.	Credit Value	<b>04 (03 Theory + 01 Practical)</b>	
7.	Marks	<b>Max. Marks: 100 = 80 Theory + 20 Internal Assessment</b>	<b>Min Passing Marks:40</b>

Part B: Content of the Course		
Total number of Teaching-Learning – Hours-45		
Unit	Topics (Course Contents)	Hours
<b>I.</b>	<b>Introduction :</b> Concept of Multimedia, media & data stream, Main properties of multimedia system, Data stream characteristics of continuous media, multimedia Applications, Hardware and software requirements, Multimedia Products & its evolution.	11
<b>II.</b>	<b>Components of Multimedia:</b> Text, Basic sound concepts, MIDI, Speech, Basic concept of Images, Graphics format, Overview of image processing, Basic concepts of Video & animation, Conventional system, Transmission, Enhanced system, High Definition system, Computer based animation, Design & authoring Tools, Categories of Authority Tools, Types of products.	11
<b>III.</b>	<b>Data Compression:</b> Coding Requirement, Source, Entropy, Hybrid Coding, JPEG, MPEG, Text Compression using Static Huffman Technique, Dynamic Huffman Technique, Statistical coding technique.	12
<b>IV.</b>	<b>Virtual Reality:</b> Introduction to Virtual reality & Virtual reality Systems, Related Technologies: Tele-operation & augmented reality system VRML Programming, Domain Dependent Application like Medical, Visualization Visibility computation Time Critical rendering,	11