



**Dempo Charities Trust's
DHEMPE COLLEGE OF ARTS & SCIENCE
Miramar, Panaji-Goa**

**Multimedia
[2 Credits 30 hours]**

Course Objective:

The aim of this course is to provide an understanding of concepts in video and audio editing.

Learning Outcome:

The student will be able to remember various features provided by Openshot and Audacity, choose necessary effects and create a movie/mix track.

Course Contents

1. Introduction to Multimedia: What is Multimedia?, Components of Multimedia, Multimedia Research Topics and Projects, Multimedia and Hypermedia, History of Multimedia, Hypermedia and Multimedia, World Wide Web, History of the WWW, HyperText Transfer Protocol (HTTP), HyperText Markup Language (HTML), Extensible Markup Language (XML)(4)
2. Multimedia Authoring and Tools: Multimedia Authoring, Multimedia Authoring Metaphors, Multimedia Production, Multimedia Presentation, Automatic Authoring, Some Useful Editing and Authoring Tools (4)
3. Graphics and Image Data Representations: Graphics Image Data Types, Bit Images, 8-Bit Gray-Level Images, Image Data Types, 24-Bit Color Images, 8-Bit Color Images, Color Lookup Tables (LUTs), Popular File Formats, GIF, JPEG, PNG, TIFF, EXIF, Graphics Animation Files, PS and PDF (5)
4. Color in Image and Video: Color Science, Light and Spectra, Human Vision, Spectral Sensitivity of the Eye, Image Formation, Camera Systems, Gamma Correction, Color-Matching Functions, CIE Chromaticity Diagram, Color Monitor Specifications, Out-of-Gamut Colors, White-Point, XYZ to RGB Transform, Transform with Gamma Correction, Color Models in Images, RGB Color Model for CRT Displays, Subtractive Color: CMY Color Model, Transformation from RGB to CMY, Undercolor Removal: CMYK System, Printer Gamuts, Color Models in Video, Video Color Transforms, YUV Color Model (6)
5. Fundamental Concepts in Video: Types of Video Signals, Component Video, Composite Video, S-Video, Analog Video, NTSC Video, PAL Video, SECAM Video, Digital Video, Chroma Subsampling, CCIR Standards for Digital Video (4)
6. Multimedia Data Compression: Lossless Compression Algorithms, Lossy compression algorithms(3)
7. Basic Video Compression Techniques: Introduction to Video Compression, Video Compression Based on Motion Compensation (4)

Reference:

1. Ze-Nian Li and Mark S. Drew, Fundamentals of multimedia

Ms Shulpa Naste