

**COURSE TITLE** : **MULTIMEDIA AND ANIMATION**  
**COURSE CODE** : **5060/4076**  
**COURSE CATEGORY** : **E**  
**PERIODS/WEEK** : **4**  
**PERIODS/SEMESTER** : **72**  
**CREDITS** : **4**

**TIME SCHEDULE**

<b>MODULE</b>	<b>TOPICS</b>	<b>PERIODS</b>
1	Introduction, Building Blocks, image compression,	18
2	Software environment, Animation Tools	18
3	Creating animation, Advanced animation	18
4	Audio Video integration & tools	18
	<b>Total</b>	<b>72</b>

**OBJECTIVES**

**MODULE I**

- 1.1 Define multimedia and List the applications of multimedia
- 1.2 Study Multimedia Hardware Video Camera, Digital Camera, Microphone, Scanner, Sound Cards- MIDI- Video Accelerators- Display Devices- Touch Screen, Interactive Display devices , Storage devices, Interfaces- FIREWIRE, USB
- 1.3 Explain the media types- Text, Video/Animation, Audio, and Image.
- 1.4 Explain the basic building blocks of multimedia- midi, mp3, wav, GIF, Animated GIF, mov, swf, wmf, avi,
- 1.5 Explain the concept of image compression
- 1.6 Study various compression Formats

**MODULE II**

- 2.1 Describe various animation tools-Maya,Director,flash
- 2.2 Study various Drawing tools.
- 2.3 study colors and filters
- 2.4 Study working with Objects-moving -copying
- 2.5 Study editing and transforming objects
- 2.6 Study Text editing.
- 2.7 study Dynamic text and scrolling
- 2.8 Study working with time line
- 2.9 Study Frames and key frames
- 2.10 Study Layers and layer folders.
- 2.11 Study Using symbols-Creating, modifying & editing symbols.
- 2.12 Study Instances.
- 2.13 Study Library,
- 2.14 Study using common library and creating own library.

**MODULE III**

- 3.1.1. Study Creating Animation.
- 3.1.2. Explain Tweened animation , shape tweening ,Classic tween and motion tweens

- 3.1.3. Explain editing motion path .
- 3.1.4. Explain motion preset and mask layer
- 3.1.5. Explain frame-by-frame animation .
- 3.2.1. Explain Bones.
- 3.2.2. Explain Animating amature
- 3.2.3 Explain 3D animation
  
- 3.3.1. Explain Action Scripts and versions
- 3.3.2. Explain ACTIONS panel .
- 3.3.3. Explain Script assist mode and adding action Script to frames
- 3.3.4. Explain Action script with movie clip.
  
- 3.4.1 Explain Publishing , publish settings and publish profiles
  
- 3.5.1. Explain exporting SWF files.

#### **MODULE IV**

- 4.1.1 Explain Importing sound
- 4.1.2. Explain Adding to Time Line, Editing Sound,
  
- 4.2.1. Explain Importing Video,
- 4.2.2. Explain Editing Video.
  
- 4.3.1 Familiarise with any two of the Open Source tools - 2D Animation- KToon , Pencil, Node Box
- 4.4.1. Familiarise with any two of the Open Source tools -3D Animation - K-3 ,OpenFX, Seamless3d
- 4.5.1 Familiarise with any two of the Open Source tools -Video Editors- Avidemux ,DVD Flick , DVDx , GNU VCDImager
- 4.4.1. Familiarise with any two of the Open Source tools -Audio Editors – CLAM, WaveSurfer, BRP-PACU, Sonic Visualiser, Tartini

### **CONTENT DETAILS**

#### **MODULE I**

**Definition** of Multimedia, Multimedia, Hardware – sound cards, video accelerators, various memory storage devices, Display devices– Media Types.

**Building blocks** : Text – Hyper text, Audio and Video file formats- standards, Image – Image types – **Image Compression**, RLE, JPEG, MPEG – Fractal and wavelet Compressions – Image file types

#### **MODULE II**

**Software applications and software environments**

**Animation tools**-Maya,Director,flash

**Drawing tools**-colors-filters-working with **Objects**-moving -copying-editing-transforming-objects

**Text** editing-Dynamic text-scrolling

working with **time line**-Frames and key frames-Layers and layer folders-Using **symbols**-Creating-modifying -editing symbols.-**Instances**.

**Library**-using common library-creating own library.

### **MODULE III**

**Creating Animation-** Tweened animation- motion tweens- editing motion path - motion preset - classic tween - frame-by-frame animation -shape tweening – mask layer

**Advanced animation-** Bones- Animating amature – 3D animation-

**Working with Action Scripts-** versions – ACTIONS panel – Scri[pt assist mode – adding actionScript tom frames – Action script with movie clip.

**Publishing and Exporting** – publish settings – publish profiles – exporting SWF files.

### **MODULE IV**

Audio video Integration and Tools

**Importing sound – Adding to Time Line, Editing Sound, Importing Video, Editing Video.**

**Open Source tools - 2D Animation-** KToon , Synfig, Pencil, NodeBox

**3D Animation** - Blender , Art of Illusion, Geist3D, K-3D , OpenFX, Seamless3d

**Flash Animation** - Pencil Animation (for animations) , SWFTools (for scripting)

**Video Editors-** Avidemux , AviSynth , Blender , Cinelerra , CineFX formerly known as Jahshaka , DScaler, DVD Flick , DVDx , GNU VCDImager

**Audio Editors** – Praat, CLAM, WaveSurfer, BRP-PACU, Sonic Visualiser, Tartini

### **REFERENCE**

1. Flash CS4 in Simple Steps – Kogent Solutions, Dreamtech Publishers
2. Flash CS3 Professional in 24 Hrs – Phillip Kerman, Sams Teach Yourself Series, Pearson Education
3. Multimedia computing communication & Application-Ralf.S and Klara.N-Pearson
4. Fundamentals of Computer Graphics and Multimedia - D.P. Mukherjee
5. Principles of Interactive Graphics – Newmann & Spaul
6. Fundamentals of multimedia – Drew ( Pearson Educatio)
7. Multimedia in practice –technology and application – Jellwate PHI
8. Computer Graphics ,Multimedia and animation-MALAY K.PAKHIRA