AMITY UNIVERSITY
UTTAR PRADESH

Course Title: Multimedia Technologies
Course Level: UG
Credit Units: 3
Course Code: CSIT324

L	T	P/ S	SW/F W	TOTAL CREDIT UNITS
2	-	2	-	3

Course Objectives:

- This course is aim to produce graduates with a broad range of multimedia production skills, in addition to an in-depth understanding of how multimedia and the internet is revolutionizing the current industry.
- Using Adobe Flash and other tools, students create materials that incorporate text, animation, images, sound, and video.
- An overarching theme is appreciation of four dimensions of multimedia: content, aesthetics, functionality, and usability.

Pre-requisites:

Basic Mathematics and Fundamentals of Computer Science

Course Contents/Syllabus:

	Weightage (%)
Module I: Introduction	**15**
Multimedia and personalized computing; a tour of emerging applications; multimedia systems; computer communication and entertainment products; a framework of multimedia systems, hardware and software used in multimedia and multimedia building blocks.	
Module II: Digital Audio Representation and Processing	**15**
Uses of audio in computer applications; digital representation of sound; transmission of digital sound; digital audio signal processing; sampling the digital audio.	
Module III: : Video Technology	**10**

Raster scanning principles; sensors for T.V. cameras; color fundamentals; color video; video equipment; worldwide television standards.	
Module IV: Digital Video and Image Compression	**35**
Evaluating a compression system; redundancy and visibility; video compression techniques; the JPEG image compression standards; the MPEG motion video compression standard; DVI technologies; Time Based Media Representation and Delivery of multimedia application. Multimedia Devices; Presentation Services and the User Interface: Introduction .Multimedia services and Window systems; client control of continuous media; device control; temporal co ordination and composition; hyper application.	
Module V: Application of Multimedia	**25**
Intelligent multimedia system; desktop virtual reality; multimedia conferencing, Multimedia authoring tools.	

Student Learning Outcomes:

After completion of this course, students will be able to:

- Understand the working of Flash and Dreamweaver.
- Create digital image and video using flash.
- Integrate multimedia into web pages using Macromedia Flash.
- Understand the integration of flash with Dreamweaver.
- Create a web page using Macromedia Dreamweaver.
- Use digital media skills at a competent level
- Create Digital sound recording and editing – Audacity
- Develop Digital image editing – Photoshop
- Demonstrate Computer animation – Flash
- Demonstrate Web publication - Word Press (blog), Flickr (images)
- Think critically about a new situation and apply the four dimensions of multimedia.
- Evaluate a website or multimedia application

Pedagogy for Course Delivery:

The classes will be taught using theory and practical based method. To clear the basic concepts objective type questions will be discussed in the class.

List of Experiments:

1. A basic understanding of Flash, the Flash Help system and the Flash Player
2. Create the animation of flying bird in flash.
3. Make an animation of bouncing ball using flash.
4. Make blinking colourful text in flash.
5. Create animation to show 9/11 attack in USA.
6. Create the animation to show the lightening of Christmas tree using more than one layer.
7. Inserting flash SWF file to HTML page in Dreamweaver.
8. Transferring flash image gallery to Dreamweaver.
9. Creating a local site using Dreamweaver.
10. Build your personal profile on web page (local site) using Dreamweaver.
11. Create the animation of walking man with his arms and legs moving.
12. Create the animation of Virtual typewriter.
13. Make a scenery showing rising sun in it using flash.

Assessment/ Examination Scheme:

Theory L/T (%)	Lab/Practical/Studio (%)	End Term Examination (Total)
66.6	33.4	100

Theory Assessment (L&T):

Continuous Assessment/Internal Assessment					End Term Examination
Components (Drop down)	Attend.	Mid Term	Assignment/Presentation	Quiz	
Weightage (%)	5	10	10	5	70

Lab/ Practical/ Studio Assessment:

	Continuous Assessment/Internal Assessment (40)					End Term Examination (60)		
Components (Drop down	Attend.	Mid Term	Lab Record	Continues Performance	Viva	Practical Evaluation	Viva	Total
Weightage (%)	5	10	10	10	5	40	20	60

Text & References:

- Multimedia and technologies by Tay Vahugan
- Multimedia systems John F. Koegal Buford Addison- Wesley, ACM Press 1994.
- Learning in the Twenty-First Century Interactive Multimedia Technology, Nato ASI Series, Springer Berlin Heidelberg.
- Multimedia for Learning: Methods and Development, Stephen M Alessi, 3rd Allyn & Bacon, Inc. Needham Heights, MA, USA ©2000 ISBN:0205276911
- Multimedia Computing: Case Studies from Mit Project Athena 1st Addison-Wesley Longman Publishing Co., Inc. Boston, MA, USA ©1993 ISBN:020152029X

Any other Study Material:

- A Gunasekaran; Current and future directions of multimedia technology in business International Journal of Information Management Volume 19, Issue 2, April 1999, Pages 105–120