

Central Institute of Technology, Kokrajhar

BTAD, Assam

Approved by MHRD and AICTE



SYLLABUS OF

ANIMATION AND MULTIMEDIA TECHNOLOGY (AMT)

**(Three year diploma programe conducted by
Department of Multimedia Communication and Design)**

Module: Diploma Branch: AMT Year: 2nd Year Semester: 3rdSem

Course Code	Name of Course	L-T-P	Credit
Co-301	Computer Application (CS)	2-0-6	05
Hu-302	Engineering Economics & Accountancy (Hu)	3-1-0	04
Sc-303	Mathematics-III (Bs)	3-2-0	05
IT-301	Information Technology	3-1-0	04
AMT-301	Multimedia Systems & Technology	4-0-2	05
AMT-302	Introduction to Animation	2-2-0	04

Module: Diploma Branch: AMT Year: 2nd Year Semester: 4thSem

Course Code	Name of Course	L-T-P	Credit
AMT-401	Fundamental of Art & Design	2-0-4	04
AMT-402	Web Designing	2-0-4	04
AMT-403	3D Modeling & Texturing	2-0-5	05
AMT-404	Audio & Video Editing	2-0-5	05
AMT-405	Layout & Perspective Technique	2-0-0	02
CAI-406	Computer Programming with C/C++ (CS)	3-0-4	05

Module: Diploma Branch: AMT Year: 3rd Year Semester: 5thSem

Course Code	Name of Course	L-T-P	Credit
AMT-501	Digital Animation & Rigging	2-0-6	05
AMT-502	CG Lighting & Rendering	2-0-5	05
AMT-503	Graphic Design and Communication	2-0-4	05
AMT-504	Fundamental of Film Making	3-0-0	03
AMT-505	Story boarding & Script writing	3-0-0	03
AMT-599	Minor Project	0-0-6	06

Module: Diploma Branch: AMT Year: 3rd Year Semester: 6thSem

Course Code	Name of Course	L-T-P	Credit
Hu-601	Industrial Management and Entrepreneurship (HU)	3-1-0	04
AMT-605	Introduction of Gaming Theory	3-2-0	05
AMT-606	Compositing & Visual Effects	2-0-5	05
AMT-607	Concept of New Media	3-2-0	05
AMT-60*	Elective(Any one from the following); AMT-608: Introduction to Visual Communication. AMT-609: TV & Radio Production.	2-0-0	02
AMT-699	Major Project	0-0-8	04

Course Name: Computer Application

L – T – P: Cr

Course Code: Co-301

2 – 0 – 6: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Unit I: Computer Fundamentals

Brief history – Babbage machine, Von Neumann. Architecture – Block diagrams, Role of Operating Systems, concept of language and language translators, editors. Memory – different types, functions, concept of I/O devices.

Unit II: Number System

Number system and codes: Decimal, binary, octal, hexadecimal number systems and conversion from one system to another, arithmetic operations using these numbers. Representation of a negative number in the different number systems. Complement and complement subtraction. Different codes: ASCII, 8421, Ex-3, 2421, gray, Alpha-numeric, BCD, Seven segment codes etc. and code conversion.

Unit III: Introduction to Operating System

Concept of resource management, single user and multi user OS, Various popular OS (DOS, Windows, Unix/ Linux), elementary commands.

Unit IV: Introduction to Internet

Fundamentals of networking – need of network topology, concept of LAN, WAN, MAN, network devices – NIC, hub, bridge, switch, repeaters, gateway, modem, transmission media. Internet services, concept of global net, different browsers, search engine.

Unit V: MS – Office:

Various products, their introduction and uses.

Reference Books:

1. DOS quick reference: Rajib Mathur
2. Learning Word for Windows : Rajib Mathur
3. Learning Windows step by step: Rajib Mathur
4. Microsoft office unleashed: Techmedia
5. ABC of Office: Han
6. Mastering Excel: Chester
7. Excel 97 Bible: John Walkenbach
8. Teach yourself MS Access in 24 hours: Eddy and Buchanan
9. Microsoft Access 2000 fast and easy: Primatech BBP
10. Unix: S. Das

ENGINEERING ECONOMICS & ACCOUNTANCY

Code: Hu-302

Theory: 70

L – T – P: Cr

Total Marks: 100

Sessional: 30

3 – 0 – 0 :03

PART A: ENGINEERING ECONOMICS

1. Introduction to Economics and its utility and scope of study.
2. Meaning and definition of utility, consumption, want value, price of goods, national income.
3. Meaning of wealth and its characteristics, classification of wealth.
4. Basic laws of demand and supply and its limitations.
5. Meaning and factors of production, land labour, capital and organisation, factors determining efficiency of labour.
6. Scale of Industries: types, advantages and disadvantages of large and small scale industries.
7. Unemployment: causes of unemployment in India and its remedies.

PART B: ACCOUNTANCY

8. Definitions, objects and principles of double entry book-keeping.
9. Transactions, classification of accounts, rules of credit and debit.
10. Journal and Ledger: Definition, posting and balance of accounts.
11. Cash Book: Single column, double column, triple column cashbook, impress system of petty cash book.
12. Trial Balance: Object of Trial balance preparation, types of errors.
13. Final accounts: preparation of trading account, profit and loss account and balance sheet.

MATHEMATICS – III

Code: Sc-303

Theory: 70

L – T – P: Cr

Total Marks: 100

Sessional: 30

3 – 2 – 0 : 05

GROUP A: DIFFERENTIAL EQUATIONS

- 1.0 Differential Equations: Definition and classification, order and degree, importance of differential equations in Engineering Field.
 - 1.1 Formation of ordinary differential equations.
- 2.0 Equation of the first order and of first degree with reference to Engineering.
 - 2.1 Separation of variables, equations reducible to variable separable form.
 - 2.2 Homogenous equations and its special form.
 - 2.3 Exact equation.
 - 2.4 Integrating factors – definition and rules of determining integrating factors.
 - 2.5 Linear equations and its solution.
 - 2.6 Bernoulli's equation.
- 3.0 Equations of first order but not of the first degree.
 - 3.1 Left hand side resolvable into factors
 - 3.2 Left hand side not resolvable into factors
 - 3.3 Clairaut's equation.
 - 3.4 Practice on units 3.1, 3.2, 3.3
- 4.0 DIFFERENTIAL EQUATIONS OF SECOND ORDER WITH CONSTANT CO-EFFICIENTS
 - 4.1 Linear equations with right hand number zero: introduction to operator D. Auxiliary equation having real and distinct roots, having equal roots, having a pair of complex roots.
 - 4.2 Equations with right hand member as an algebraic expression, trigonometric and exponential functions of X. Solution of linear equations: general and particular integral, complementary functions.
 - 4.3 Engineering application of differential equations such as L-R circuit, L-R-C circuit, Simple Harmonic Motion, Rate of growth and decay etc.

GROUP B: GRAPHICS

1.0 INTRODUCTION AND ITS CONCEPT

- 1.01 Graphical solution of equations.
- 1.02 Cubic equation (one part cubic and the other part linear)
- 1.03 Quadratic equations
- 1.04 Trigonometric equations

2.0 DETERMINATION OF LAWS OF FITTING OF CURVES

Linear, Quadratic, Exponential, Binomial etc.

GROUP C: STATISTICS

1.0 INTRODUCTION AND ITS APPLICATIONS IN ENGINEERING FIELD

2.0 MEASURES OF CENTRAL TENDENCY

- 2.01 Mean, median and mode (with illustration)
- 2.02 Relation between them, the empirical formula.

3.0 MEASURES OF DISPERSION

- 3.01 Range, Mean Deviation and Standard deviation (with illustration)
- 3.02 Variation and coefficient of variation

4.0 CORRELATION

- 4.01 Meaning of correlation as a bi-variate relation, scatter diagram.
- 4.02 Karl Pearson's correlation formula for two variables
- 4.03 Determination of correlation by Karl Pearson's formula with reference to engineering applications.

5.0 PROBABILITY

- 5.01 Introduction to Probability
- 5.02 Events: mutually exclusive events, exhaustive events etc.
- 5.03 Definition of probability
- 5.04 Addition and Multiplication laws of probability
- 5.05 Examples on probability.

GROUP D: ANALYTICAL GEOMETRY OF 3-DIMENSIONS AND INTRODUCTION TO VECTOR ANALYSIS

1.0 INTRODUCTION AND DEFINITIONS

- 1.1 Three dimensional rectangular Cartesian co-ordinates, co-ordinates of a point in space with reference to vectors, addition and subtraction formula.
- 1.2 Coordinates of a point which divides a straight line in a given ratio.
- 1.3 Distance between two points.

2.0 DIRECTION RATIOS AND DIRECTION COSINES WITH REFERENCE TO VECTORS

- 2.1 Definition of direction ratios and direction cosines
- 2.2 Properties of direction ratios and direction cosines
- 2.3 Relation between direction ratios and direction cosines
- 2.4 Angle between two lines in vector form
- 2.5 Condition of perpendicularity and parallelism.

Recommended books:

1. Integral calculus: Das & Mukherjee
2. Engineering Mathematics: Shanti Narayan
3. An Introduction to Statistics (Vol. I&II): L. Choudhury
4. An easy approach to statistics: S.P. Gupta
5. Analytical Solid Geometry: Misra & Misra
6. Higher Secondary Mathematics: B.S. Grewal
7. Vector & Mechanics: Mena & Mishra

Course Name: Information Technology

L – T – P: Cr

Course Code: IT-301

3 – 1 – 0: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Unit I:

Information Concept and Processing:

Definition of information, Data vs information, Introduction to Information representation in Digital Media, Text, image, graphics, Animation, Audio, Video etc.

Unit II

Information Representation:

Information content, Entropy, Data Compression, Introduction to various compression techniques, Shannon Fano, Huffman Coding, LZW coding, Introduction to JPEG, MPEG, MHEG and other IT Industry Standards.

Unit III:

Concept in Computer & Programming: Computer Application:

Definition of Electronic Computer, History, Generations, Characteristic and Application of Computers, Classification of Computers, RAM/ROM.

Unit IV:

Programming Language Classification & Program Methodology:

Computer Languages, Generation of Languages, Translators- Interpreters, Compiler/ Interpreters, Compilers, Assemblers, Flow charts.

Unit V:

Digital Devices and Basic Network Concepts. Digital Fundamentals:

Various Codes, decimal, binary, octal, hexadecimal conversion.

Unit VI:

Data Communication & Networks:

Computer Networks, Networking of Computers- Introduction of LAN and WAN, Network Topologies.

Unit VII:

Internet and Web Technologies. Internet and World Wide Web:

Hypertext Markup Language, DHTML, WWW, Gopher, FTP, Telnet, Web Browsers, Net Surfing, Search Engines, Email, ISP, EDI, E-Commerce.

Unit VIII:

Concepts in Operating System, Office Tools and Data Management

Introductory concepts in operating system & Data Management: Elementary concepts in Operating System, textual vs GUI Interface, Introduction to DOS, MS Windows, MS office tools, MS Word, MS Excel, MS Power Point, Tool for Data Management, Basics of Database management system, Introduction to basic Commands of Dbase, FoxPro, SQL etc.

IT Industry Trends, Careers and Applications in India: Scientific, Business, Educational and Entertainment Application, Industry Automation, Weather forecasting, Awareness of ongoing IT projects in India NICNET, BRNET, etc. Application of IT to other Areas E-Commerce, electronic governance, Multimedia, Entertainment.

Reference Books:

- D. S. Yadav, "Foundation of IT", New Age, Delhi.
- Curtin, "Information Technology: Breaking News", TMH.
- Rajaraman, "Introduction to Computers", PHI.
- Nelson, "Data Compression", BPB.
- Leon & Leon "Fundamental of Information Technology", Vikas

Course Name: Multimedia Systems and Technology

L - T – P: Cr

Course Code: AMT-301

4 – 0 – 2: 05

Total Marks: 100

Theory: 28/70

Sessional: 15/30

Unit-I:

Introduction to Multimedia, Multimedia definition, Multimedia Application, Multimedia System, Multimedia Information, Multimedia Objects, Multimedia in business and work, Characteristics of Multimedia, Components of Multimedia System, Multimedia Data: Input and format.

Unit-II:

Multimedia data basics, Static and Continuous media, Analog and Digital Signals, Text and Static data, Analog to Digital and Digital to Analog Conversion, Text, Graphics, Images, Audio, Video.

Unit-III:

Multimedia data representation, Digital Audio, image formats, audio file formats, video formats, Multimedia hardware, Memory and storage devices, Communication devices. Compression, Compression ratio, Lossless & Lossy compression.

Unit-IV:

Overview of Internet, Browsers, Internet services- URL, Dial-ups, ISDN, e-mail, chat, cross-platform features, audio & video streaming, Internet applications – Audio & video conferencing, Internet telephony, World Wide Web, Computer networks, Virtual reality.

Unit-V:

Multimedia presentation and authoring, professional development tools, the Stages of a Multimedia Project, Requirements of a Multimedia Project, Building up a Team, Duties of a Project Manager, Multimedia Designer, Interface Designer, Content Writer, Video and Audio Specialist, Multimedia Programmer, Implementing Multimedia with the World Wide Web.

Reference Books:

- # “Multimedia, Making IT Work” – by Tay Vaughan; Osborne McGraw Hill.
- # “Multimedia Systems” – by Buford; Addison Wesley
- # “Multimedia Systems” – by Agrawal & Tiwari; Excel

Course Name: Introduction to Animation

L- T – P: Cr

Course Code: AMT-302

3 – 1 – 0: 04

Total Marks: 100

Theory: 28/70

Sessional: 15/30

UNIT I:

Different Types of Animation, Introduction to Pre-Production, Scripting, Storyboarding, Layout, Character Designing, Props Designing, Background Designing, Camera Angles, Frame Lengths, Introduction to 2D Animation.

UNIT II:

Introduction to Production, Introduction to 3D animation, Modeling, Texturing, Rigging, Animation.

UNIT III:

Lighting, Dynamics, VFX, Introduction to Post-Production, Compositing, Rendering, Tools of the trade.

UNIT IV:

The World of Gaming, Different types of games, Scope of Animation, Various positions in the Animation Industry.

Reference Books

“Beginner’s Guide to Animation” – by Mark Murphy; Watson-Guptill Publication

“Producing Animation” – by Catherine Winder & Zahra Dowlatabadi; Focal Press

“Drawn to Life: 20 Golden Years of Disney Master Classes: Volume 1” – by Walt Stanchfield;
Focal Press

Course Name: FUNDAMENTALS OF ART & DESIGN

L - T - P: Cr

Course Code: AMT-401

2 - 0 - 4: 04

Total Marks: 100

Theory: 28/70

Sessional: 15/30

Course Description

Fundamentals of Art Appreciation is a one-semester course that explores various aspects of art in an effort to intrigue students' minds and encourage students to adopt a fascination for and understanding of fine art. Students will be introduced to the elements and principles of art through important artworks from various media including painting, sculpture, architecture, and photography. The course will examine different types of art media and techniques as students investigate answers to the question "Why is art created?" Students will learn to critique and evaluate pieces of art and will also be introduced to the history of art. This course will provide students with a working knowledge of art concepts and an enriched vocabulary so that they can become more informed consumers of art.

Course Objectives

At the successful completion of this course, the student should be able to:

- Compare and contrast cultural and historical developments and the influences of various art forms.
- Identify media, stylistic characteristics, influences, and artistic concerns of major artists and/or Cultures.
- Recognize and discuss the iconography of specified works of art, as well as the iconography of popular works of art during different historical periods and from different geographical and Cultural areas.
- Understand basic materials, methods, and equipment used in making art.
- Learn the vocabulary associated with visual arts.
- Develop critical thinking skills by discussing and analysing artworks in a critique with peers.
- Explain the function of art in its historical context.
- Consider the ways that art is valued.

Course Content:

Students in all sections of this course will engage in the following content:

FACE-TO-FACE

1. Read assigned sections in the text.
2. Take notes from lecture, view videos, and power point presentations.
3. Complete a power point.
4. Complete 3 exams.
5. Complete assigned hands-on projects during class periods.
6. Attend two Fine Art Events and submit written documentation.
7. Complete a Final Exam.

Unit I: The Elements of Art

Unit Objectives

Upon completion of this unit, you will be able to:

- understand the definitions of the different elements of art
- describe how the elements of art are applied to actual works of art
- understand expressive functions of each of the elements
- identify these elements in actual works of art

Lessons

1. Line
2. Shape, Form, and Space
3. Colour and Value
4. Texture

Unit II: The Principles of Art

Unit Objectives

Upon completion of this unit, you will be able to:

- identify the principles of art in artworks
- understand how the principles of art can be used to make a work more expressive
- realize that the same principles of art can be used in different ways for different effects
- understand how the elements of art and the principles of art are used together for effective works of art

Lessons

1. Balance
2. Proportion
3. Pattern and Movement
4. Emphasis, Unity, and Variety

Unit III: Art Media and Techniques

Unit Objectives

Upon completion of this unit, you will be able to:

- understand a variety of different media types and how they are used
- identify works of art made using these different media types
- place each of these media types in a historical context regarding most common use or earliest development

Lessons

1. Drawing and Painting
2. Sculpture
3. Architecture
4. Printmaking and Photography

5. Crafts
6. Graphic Design and Computer Art

Unit IV: Art History

Unit Objectives

Upon completion of this unit, you will be able to:

- understand how culture affects art production
- illustrate knowledge of different worldwide cultures
- identify cultural or religious influences in a work of art
- discuss different styles or movements in art, and know how each developed
- understand how interaction of different cultures can have a profound impact on the art they produce

Lessons

1. The Ancient World
2. The Art of India,
3. Western Art: The middle Ages through the Renaissance
4. Western Art: The Baroque through the Nineteenth Century
5. Twentieth Century Art

Assessment:

Exams: Information from Chapters in text, A History of Western Art, 5th Edition. Final Exam covers

Identification of art work. (Face-to-Face and On-Line classes)

Discussion: Students will be asked to participate in discussions concerning subject matter addressed in the course. (Face-to-Face and On-Line classes)

Power Point Presentation: Reviews of artist and art work. (Face-to-Face and On-Line classes)

Hands-on Projects: Students will be assigned projects that correspond with the Visual Elements and

Principles of Design. (Face-to-face classes)

Fine Art Events: Students will be required to attend Fine Art Events and submit a short summary of that

Texts, Materials, and Supplies:

Text: A History of Western Art 5th Edition by Laurie Schneider Adams

Computer: Access to a computer, Canvas, and the internet.

Course Name: Web Designing

L – T - P: Cr

Course Code: AMT-402

2 – 0 – 4: 04

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Unit I:

The Internet – concept, types, connections – structure and features of internet – Internet and Intranet, Protocols, Browsers, Search engines, Web structure, Web structure, Web blogs.

Unit II:

Internet services—URL, Dial—ups, ISDN, e-mail, chat, cross platform features, audio & video streaming, Internet applications—Audio & video conferencing, Internet telephony, virtual reality, artificial intelligence.

Unit III:

Fundamentals of web designing – tools – design techniques – Web site organization – file structure, naming conventions, pages, folders, navigation, hyperlinks and adding sound.

Websites – features – portals – content- corporate sites – commercial sites—functions.

Unit IV:

Content planning – Analysis – Objectives—Content strategies – developing content tactics – defining content matter.

Unit V:

Web authoring tools – Adobe Photoshop, Front Page, Dream weaver, Flash, using peripherals for website enhancements.

Adobe DreamWeaver—features – tools. Microsoft front page – features – tools.

Reference:

- Internet Bible, IDG Books, New Delhi, 1998.
- Internet for everyone, Leno et al., Lone Techworld, Chennai 1998.
- Building a website, Tim Worsley, Orling Kindersely, New Delhi, 2000.
- Web Designing Fundamentals, Daniel Gray, Dreantech Press, New Delhi,2000.
- Using the internet (4th Ed.), Prentice Hall, New Delhi,2000.
- How the Internet works, Millennium Edition by Preston Gralla
- Dreamweaver CS5: The Missing Manual – by David Sawyer McFarland, O’Reilly Press

Course Name: 3D Modeling & Texturing

L – T – P: Cr

Course Code: AMT-403

2 – 0 – 5: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Course Description:

This course focuses on 3D character design and modeling for animation. Students will be introduced to character design and modeling methods such as modeling with primitives, NURBS, polygons and subdivision surfaces. Production pipeline issues such as geometry deformation and level of detail will be emphasized.

Objective:

This class will show how to work with a popular 3D modeling package and how to make a project from design to final render. Students will work on 2 separate projects, one focused on creating a high quality render and the other will focus on creating animation. Along the way, students will work on exercises to hone the skills needed for the projects. This course will cover all related techniques needed to create 3D scenes including lighting, texturing and rendering.

Unit I:

Maya Interface, Control the display of attributes in the Channel Box, Introduction to Polygon Modeling, Concept of NURBS, Combine and Separate, Extract, Fill Hole, Loft Option, Mirror Geometry, Polygons Menu, Normals, Soft Selection, Smooth Mesh, Models for Games and Production, Boolean Operation, Editing NURBS, Creating NURBS curves.

Unit II:

Importing and Exporting files, Use Curves in 3D Modeling, Concepts of Sculpting, The Outliner, High Poly Character Model, Low Poly Model, Gaming Models, Inorganic Modeling, Organic Modeling.

Unit III:

Adobe Photoshop, Photoshop tool Knowledge, RGB Colour, basic Image Manipulation: Bit map Images, Vector Images, Image size and resolution Settings, Creating Images, Color Concepts, Paint Tools Concept, Layer Basics, Masking,

Unit: III

Definition of Textures, Introduction to UV Mapping, Planar Mapping, Spherical Mapping, Cylindrical Mapping, Automatic Mapping, Matte Painting, Digital Painting, Ramp Shader, Displacement Map, 3D Motion Blur, Still Photography, Paint Effect.

Unit: IV

Materials, Material Editor, Hypershade, Bump Maps, Specular Shading Attributes, Incandescence Maps, Transparency Maps, Environment Sky Attributes, Colour Maps.

Reference Books:

- Getting Started in 3D with Maya: Create a Project from Start to Finish: Model, Texture, Rig, Animate, and Render in Maya – by Adam Watkins
- Thinking Animation: Bridging the Gap Between 2D and CG – by Angie Jones, Jamie Oliff

Advanced Maya Texturing and Lighting – by Lee Lanier

Course Name: Audio and Video Editing

L – T - P: Cr

Course Code: AMT-404

2 – 0 – 0: 02

Total Marks: 100

Theory: 28/70

Sessional: 15/30

Course Objective:

Students in this course will learn a broad range of digital media skills, concepts, terminologies, formats, trends, and infrastructure requirements. Through extensive hands-on tutorials and projects, students will learn techniques for producing digital audio and video.

UNIT I:

Introduction to Audio Editing, MIDI, Digital Audio, Firewire - Types of Wires and the peripherals, Voice-over recording, , Filters, Codecs.

UNIT II:

Introduction to Digital Video and Video Editing, Principles of editing, Introduction to Video Editing Tool; Adobe Premier, Final Cut Pro.

UNIT III:

Linear and Non-linear Editing, on-line and off-line editing, In-Camera Editing, Timeline, Three Point Edit, Transitions, Video Formats and Broadcast systems, Continuity, Cut in, Cut away, Jump cut, time remap, Rule of 180 Degree, Rule of 30 Degree.

UNIT V:

Framing effective shots--Field of View, Headroom, Noseroom and Leadroom, Types of Camera, Lens, Camera angles, shots, movements, Image Formats - sizes, Single and Multi-camera shoots.

Reference Books:

Audio Production Work text; *Concept, Technique and Equipment 6th Edition*

Author; David E. Rose, Lynne S. Gross, Brain Bross

Grammar of the Edit, Author; Roy Thompson, Christopher J. Bowen

Grammar of the Shot, Author; Roy Thompson, Christopher J. Bowen

Course Name: LAYOUT AND PERSPECTIVE TECHNIQUE

L – T – P: Cr

Course Code: AMT-405

2 – 0 – 0: 02

Total Marks: 100

Theory: 28/70

Sessional: 15/30

Description: Creating the space for animated characters to act in; visual storytelling, introduction to perspective; creating the illusion of 3D space, incorporating perspective into the design of all manner of environments. Basic design principles utilized to guide the eye of the audience around the static and moving picture: basic lighting concepts, using value to direct the eye.

Course Objective(s)

After completing this course, students will be able to:

1. Understand about perspective rules
2. Use of perspective Knowledge and create an environmental design.
3. Use field guides and various layout and compositing design techniques.

Course Outline

UNIT 01

Introduction to layout, Idea of animation processes, Equipment for Lay out design,

UNIT 01

Perspective-One point perspective, two point perspective, three point perspective, forces perspective, and aerial perspective

UNIT III

Instruction of Pan, Pan Paper field Sizes, Vertical Pans, Tilt field Pans, Multi-position panning layouts, Zip Pans,

UNIT IV

Composition, Focal Points, Conceptual Drawings, Leading Eye, Animating Background, Positive & Negative spaces, Silhouette, Framing, Rest Areas,

UNIT V

Lighting Rendering, Working out shadows,

Teaching Method(s)

Studio drawing, Tutorial

Teaching Media

Video, drawings, and PowerPoint presentations

Reference(s)

Chelsea, D. (1997). *Perspective for Comic Book Artists (How to Achieve a Professional Look in Your Artwork)*. Watson-Guptill Publications.

Eisner, W. (1996). *Graphic Storytelling and Visual Narrativ*. Poorhouse Press.

Mark T. Byrne (1999). *Animation .The Art of Layout and Storyboardingm* Amark T. Byrne Publication.

Course Name: Computer Programming with C/C++

L–T–P: Cr

Course Code: CAI-406

3–0–4: 05

Total Marks: 100

Theory: 28/70

Sessional: 15/30

- Unit I** Introduction to salient features of C, C-tokens, data types in C, types of variables, declarations, type casting and expression Control flow-branching and looping.
- Unit II** Functions – pass by value, pass by reference and program structure, string manipulation pointer and array, Passing pointers as arguments in function.
- Unit III** Structural input and out file handling, UNIX system interferences, Special features of C
- Unit IV** Object oriented programming, data encapsulating, inheritance & overloading
- Unit V** File handling with C++, constructors, destructors, Special features of C++

REFERENCE BOOKS:-

Sl. No.	Author, Publisher and Address	Edition, Year of Publication	Title
1.	Balaguruswamy Tata McGraw Hill New Delhi	Ed. 1997	Programming in ANSI C
2.	Byron Gottfried McGraw Hill International, New York	Ed. 1996	Programming with C
3.	Kernighan B W & Ritchie Denison, Prentice Hall of India, New Delhi	Ed. 1990 2 nd Ed.	The C Programming Language
4.	Robert Lafore, Galgotia Publications, New Delhi.	Ed. 1991	Object oriented Programming in TURBO C++

Course Name: Digital Animation and Rigging

L – T – P: Cr

Course Code: AMT-501

2 – 0 – 6: 05

Total Marks: 100

Theory: 28/70

Sessional: 15/30

Description: Digital animation and Rigging offers students an introduction to the theory and practice of animation, including character rigging. This course feature a heavy emphasis on practical, hands-on learning, which usually takes place in a laboratory setting in which students can work with necessary software. Students will learn to develop the artistic and technical skills they need to be successful as an animator. They will learn the art and science of building a character rig as well as the development process and pipeline used in the industry.

Course objectives:

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

- 1) Understand and apply the principles of animation in their animation
- 2) Convey emotions like joy, devastation ,concern etc through posing exercises
- 3) Animate the bouncing ball by learning to express different weights
- 4) Animate a simple and straightforward walk cycle
- 5) Rig a character properly and efficiently based on industry standards.
- 6) Understand the rigging pipeline.
- 7) Understand the most utilized rigging menus.
- 8) Skin a character properly.

UNIT-I: Animation Techniques

Types of Animation Techniques and Principles of Animation

UNIT-II: POSING

Pose, Primary function of pose, Line of action, reversing the line of action, Uses of vertical line of action, Flow lines, Proper weight in posing and staging, Silhouette.

UNIT-III: KEYFRAME ANIMATION

Keys, Extremes, Breakdowns, in-betweens, Blocking, Graph editor, Cleanup and In-between, Understanding key frames, Non-Linear Animation – Motion Path Animation –Deformers, Motion trail, Turntable.

UNIT IV: Introduction to Rigging

What is rigging and why it is needed, Character rigging in a 3D production.

Basic concepts needed for Rigging: pivot, Parenting v/s Grouping, Constraints, types of constraints

UNIT V: Maya Skeletons

Understanding joints, Bone set-up, importing character in Maya, Setting up bones for biped character, managing hierarchies. Kinematics: introduction and overview of IK and FK.

UNIT VI: Character set-up

Anatomy study: Study of human skeleton

Starting to rig a character (biped): Setting up the skeleton, rigging the leg and the feet using reverse foot, rigging the hand in IK and FK (IK/FK switch), Deformers.

Reference books:

An Essential Introduction to Maya Character Rigging by Cheryl Cabrera,
Inspired 3D Advanced Rigging and Deformations by Brad Clark, John Hood & Joe Harkins,
Inspired 3D Character Setup by Michael Ford.

Animation Survival Kit by Richard Williams, Drawn to life, vol I and II by Walt Stanchfield, Acting for Animators by Ed Hook, Inspired 3D character animation by Kyle Clark and Michael Ford, Tony White's Animator's Notebook by Tony White, Understanding 3D Animation using Maya by John Edgar Park.

Course Name: CG Lighting & Rendering

L – T – P: Cr

Course Code: AMT-502

2 – 0 – 5: 05

Total Marks: 100

Theory: 28/70

Sessional: 15/30

UNIT I

Basics of Lighting, Color theory, Direct and Indirect Light, Types of Lights in Maya, 3-point Lighting, Light attributes, Shadows, Shadow Maps

UNIT II

Working with Layers, Rendering in Layers, Rendering in passes, Lighting Passes, Depth of Field, Cameras

UNIT III

Basics of Caustics, Mental Ray, Photons, Global Illumination, Raytracing, Final Gather

UNIT IV

Basic Lighting Techniques, Indoor and Outdoor lighting Techniques, Special Lighting Techniques, Materials and Rendering Algorithms

PRACTICAL

- I. Lighting a 3D scene using 3-point Lighting
- II. Lighting Indoor 3D scenes using all Maya Lights
- III. Lighting Outdoor 3D scenes

Reference Books:

- Digital Lighting and Rendering I, II - by Jeremy Birn.
- Essential CG Lighting Techniques - by Darren Brooker
- Advanced Lighting and Materials with Shaders - by Kelly Dempski and Emmanuel Viale.

Course Name: GRAPHIC DESIGN AND COMMUNICATION

L - T - P: Cr

Course Code: AMT-503

2 - 0 - 4: 04

Full Marks: 100

Theory: 28/70

Sessional: 15/30

DESCRIPTION: The course Graphic Design and Communication is basically about the fundamental knowledge of Graphic Design such as text, form, colour, image, composition, figure and ground, typography etc. In addition to that a brief history and modern technologies used in graphic design is also included.

OBJECTIVE: The objective of the course to teach students about the fundamentals and basic techniques of Graphic Design as well as latest technologies used in this field.

The studio part includes –

- Figure and Ground exercise,
- Typography exercise,
- Book layout,
- Poster layout,
- Advertising,
- Artwork creation technique etc.

To train the students about Graphic Design.

Course Content:

UNIT 1

Introduction to elements of graphic design - Text and image, grids and layout, composition, form and function, figure and ground phenomenon.

UNIT 2

Gestalts laws

UNIT 3

Typographic fonts and their characters. Typographic parameters: x-height, ascenders, descenders, kerning, tracking and leading. Variations of body text, headlines and display text.

UNIT 4

Hands on practice using application of fundamentals of Graphic Design.

UNIT 5

Introduction to Printing Technology.

Introduction to Digital Media Technology.

STUDIO EXERCISE

Figure and Ground exercise, Typography exercise, Book layout, Poster layout, Advertising, Artwork creation technique.

Text books:

1. A. Swan, *The new Graphic Design School*, VNR, 1997
2. R. Carter and P. B. Meggs, *Typographic Design: Form and Communication*, John Wiley & Sons, 2000

Reference books:

1. A. Darley, *Visual Digital Culture*, Routledge, 2000
2. M. A. Muser and D. Macleod, *Art and Visual Environments*, MIT Press, 1996
3. R. Hollis, *Concise History of Graphic Design*, Thames & Hudson, 1994
4. P. B. Meggs, *Type and Image: the language of graphic Design*, VNR, 1992
5. A. White, *Type of use: effective typography for electronic publishing*, New York Design Press, 1992

Course Name: FUNDAMENTALS OF FILM-MAKING

L - T - P: Cr

Course Code: AMT-504

3 - 0 - 0: 03

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Course Description

In this course, students will develop critical viewing and “hands-on” production skills, as they learn the language of documentaries geared towards social change. We will discuss the evolution of documentary filmmaking, and explore how these films comment on society.

We will examine the varied forms of documentary film-making, including historical films, advocacy videos, political satire, propaganda, cinema verity and other depictions of “reality.” Students will engage in production and post-production workshops to develop their own skills as directors, producers, and editors. Small groups will create a complete documentary film by the end of the semester.

This class should be of equal significance to students with interests in journalism, documentary history, active community leadership, and filmmaking of any kind.

Student Learning Outcomes:

1. Compose effective treatments and scripts for use in common video and film genres including documentaries, dramas, commercials, news, and public service announcements.
2. Demonstrate the preparation needed for film and video production, management (including budgeting, supervision of personnel, permitting, and scheduling and guild/union relations) and post-production supervision.
3. Describe accepted film industry distribution processes including promotions, advertising, and publicity.
4. Demonstrate industry standard film/video editing and post-production processes used in the completion of shorts, trailers, documentaries, and features.
5. Apply cinematographic concepts to film/video projects including camera setup, lighting, and scene design.
6. Develop professionally acceptable resumes, demo reels and interview techniques needed for employment within the film industry.

Course Content:

Unit I: History of Cinema, Research

Development of Classical Indian & Hollywood Cinema, Overview of writing for different mediums like, TV, radio, newspaper and other performing art format,

Development of Story: Basic elements, Principles and tools of script writing, Role of language, Introduction of subject, theme, plot, Definition and explanation of story writing, Theory of

projection of conflict, presentation of plot, Characterization-case studies with successful writers, Direction: The thought process of director

Unit II: Film Grammar for Scriptwriting

Interpretation of story, scripts and storyboard to develop an overall vision of production, Working with a script/screenplay, Production models: Preproduction & post production activities, Directing and analysing a film, Animation film Techniques,

Unit III: Screen Grammar & Elements of Film-Making

An introduction to screen grammar: What is a shot? The various elements of shot-taking: Image Size, Camera Angles, Movements, Lenses, Lighting, Camera Speed, Stocks, Graphics, Colour. The Rule of Thirds & the Golden Points. Depth of Field and Selective Focus. Concept of Sound,

Assignment:

Identifying the various elements of sound design in 6 to 10 consecutive shots of a scene and analysing the effect of each of these elements.

Project: MAKING A SHORT FILM:

Please Note: The students would work in groups for making the short films. The technicians and equipment required for the practical's and projects would be provided to the students. The students can arrange for more production requirements at their own cost.

REFERENCE BOOKS:

1. Film Directing shot by shot: Visualizing from Concept to Screen (Michael Wise Productions) by Steve Katz.
2. Cinematography for Directors: A guide for Creative Collaboration. Jacqueline B Frost (Author) Michael Production.
3. Teaching Analysis of Film Language, David Wharton and Jeremy Grant

Course Name: STORY BOARDING & SCRIPT WRITING

L - T – P: Cr

Course Code: AMT-505

3 – 0 – 0: 03

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Course Description

This course focuses on the fundamental skills of design for time-based media beginning with basic conceptual scripting and story-boarding techniques and ending with the creation of an “animatic” prototype. The art of storytelling and script writing is explored from both abstract and representational points of view, with applications ranging from cinema and cartooning treatments to character animation.

Workshop goals:

To instruct participants in the basics of storyboard creation for animation and live-action projects.

Method of Instruction:

- 1) lectures,
- 2) Studio demonstrations,
- 3) Class/ Studio projects,
- 4) class discussions

Required Text Books: *Exploring Storyboarding*, Tumminello, W., Thompson Learning, ISBN 1-4018-2715-2

Other Materials: Pencils, erasers, pens (black sharpie thin/thick), knife, scissors, notepad or sketchbook for lecture and some type of portable computer storage device (i.e.: jump/flash drive, iPod, etc.)

Course Content:

UNIT-I

Introduction - Visual thinking - Different stages of scripting – idea - Screen play script - Script writing formats-Split page format - Characterization and theme

UNIT-II

Script organization - target audience consideration - scripting for science/development program - scripting for educational program - scripting for women’s program - scripting for commercials.

UNIT-III

Introduction Storyboards – Advantages of Story boarding - The Human Line-Form - Shape- Types of Storyboards Materials - Introduction Animatics - Shot Lists and Diagramming & Framing - Composition Depth of field lighting - Animatics and VoiceTrack – Perspective - Concept Illustrations,

UNIT-IV

Storyboard, Case Studies, Work Week, Workday, Final Presentations

References

1. Writing the Script by Wells Root ,Jan 15, 1980
2. Secrets of Film Writing by Tom Lazarus Jun 2, 2001
3. Writing the Short Film, Second Edition by Patricia Cooper and Ken Dancyger ,(Sep 1999)
4. Documentary Storytelling for Video and Filmmakers by Sheila Curran Bernard
5. Simon, Mark, Storyboards: Motion in Art, Focal Press, Burlington, MA, 2007. ISBN 10: 0- 240-80805-3, ISBN 13: 978-0-240-80805-5

Course Name: Minor Project

L – T – P: Cr

Course Code: AMT-599

0 – 0 – 6: 06

Full Marks: 100

Practical: 25/50

Sessional: 25/50

Students will be given a small project which may be a short movie, animated or live footage, which should reflect all the pre-production, production, post-production stages and should contain original audio and videos.

SUBMISSION:

- Project Report
- Video of Documentary/Short Movie

Course Name: Industrial Management and Entrepreneurship

L – T – P: Cr

Course Code: Hu-601

3 – 1 – 0 : 03

Full Marks: 100

Theory: 28/70

Sessional: 15/30

INDUSTRIAL MANAGEMENT:

UNIT - 1:

Meaning and concept of Management, Principles and functions of Management, Labour turnover, Payment of wages – factors determining the wage, Methods of payment of wages.

UNIT - 2:

Leadership and Decision Making, qualities and styles of Leadership, decision making process.

UNIT - 3:

Elements of costs, Analysis and classification of expenditure for cost accounts, preparation of cost sheet, Marginal costing and Break Even Analysis.

UNIT - 4:

Factories Act -1948, Definitions, Main Provisions regarding Health, Safety and welfare of workers.

UNIT - 5:

Industrial Dispute Act – 1947, Definitions, Preventive measure, Machinery for settlement of Industrial Dispute in India.

UNIT - 6:

Trade Union Act - Meaning and function of Trade Union.

ENTREPRENEURSHIP:

UNIT - 7:

Meaning and function of Entrepreneurship

UNIT - 8:

Forms of Business organization: Sole Trader, Main features, merits and demerits, Partnership – main features, merits and demerits. Joint stock company – main features, difference between private and public limited companies. Introduction to co-operative and public undertaking.

UNIT - 9:

Small scale industries: Definitions, scope with reference to self-employment, procedure to start small scale industries, Sources of finance - Bank, Government and Financial institutions etc. Selection of site for factories, Industrial Estate, Growth Centre, Ancillary Industries.

UNIT - 10:

System of Distribution – Wholesale and Retail Trade.

References :

1. General Principle and Practice of Management – L M Prasad
2. Management Concepts and Practice – Kanchan Bhatia and Shweta Mittal
3. Micro Economics – Sandeep Garg
4. Self-Employment through Entrepreneurship – J.C. Kalita
5. Entrepreneurship Development & Small Business Management – Dr. Bhawna Bhatnagar and Ankur Budhiraja.
6. Labour and Industrial Law of India – S.K. Misra
7. Industrial Safety and Health for Administrative Services---Charles D. Reese
8. Entrepreneurship –D D Mali and J.C. Kalita

Course Name: INTRODUCTION OF GAMING THEORY

L - T – P: Cr

Course Code: AMT-605

3– 2 – 0: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Course Description

This course is an introduction to the academic study of video games. Students read and discuss a substantial number of scholarly texts, applying the theories and thoughts from these sources in the criticism and analysis of video games.

Learning Objectives:

After successful completion of the course the student should:

- be familiar with the core areas of the academic field of game studies.
- demonstrate knowledge about the history and emergence of the academic study of video games,
- be able to discuss and explain central concepts within the field,
- be familiar with some of the major debates and developments during the last decade,
- display the ability to formulate video game analysis and criticism orally and in writing within given time frames and maintaining academic standards.

Learning Activities:

The scheduled activities consist of lectures, seminar discussions, exercises, and presentations. Students will spend a significant amount of their study time reading academic papers and other texts. Students are also required to play a game for the game criticism essay assignment. The students will have to provide the necessary equipment to fulfil the assignment. Written assignments and oral presentations are a major part of the course.

Statement on Plagiarism

“Plagiarism - use of another's intellectual work without acknowledgement - is a serious offense. Students found plagiarizing are liable to obtain no marks at all for their assignments. Full acknowledgement for all information obtained from sources outside the classroom must be clearly stated in all written work submitted. All ideas, arguments, and direct phrasings taken from someone else's work must be identified and properly footnoted. Quotations from other sources must be clearly marked as distinct from the student's own work.

Unit I:

Introduction to Video Games, History of Video Games, Definition of Play, Games as digital media, brainstorming game ideas, introduction to key concepts.

Unit II:

Narratology and Ludology, The Classification of games, Game Types, Game Genres, MMOGs, Player Perspectives, Designer Perspectives, Games and Learning.

Unit III:

Introduction to Game Analysis, Cheating, Rules and fiction, Beyond the Rules of the game, Playing with the Rules, Interface and Immersion, Player Experience, Types of players, Hardcore Vs Casual Players, Identity.

Unit IV:

Gaming platforms, Gaming Hardware, Building a Gaming rig, Fictional Worlds, Games as Simulations, Gaming in Virtual Reality.

Unit V:

Game Aesthetics, Criticism and Journalism, Game Culture: Communities, Violence, Nature and Significance of Play as a Cultural Phenomenon, Play and Work.

Assignment:

- Game criticism essay (1000 words).
- Presentation on a Video Game, describing its development history as well as the role it plays in the society.

REFERENCE BOOKS:

4. Understanding Video Games: The Essential Introduction – By Jonas Heide Smith, Simon Egenfeldt-Nielsen and Susana Pajares Tosca.
5. The Ultimate History of Video Games – by Steven Kent.
6. The Art of Video Games: From Pac-Man to Mass Effect.
7. The Art of the Video Game – by Josh Jenisch.

Course Name: Compositing and Visual Effect

L – T – P: Cr

Course Code: AMT-606

2 – 0 – 5: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

DESCRIPTION: The course Compositing and Visual Effects is basically about the fundamental knowledge of visualizing visual effect of various form and compositing.

OBJECTIVE: The objective of the course to teach students about the fundamentals and basic techniques of Visual Effects and Compositing as well as latest technologies used in the industries.

The studio part includes –

- After Effects, Maya Dynamics.
- Dynamics: Creating Breaking Ground, Volcanic Activity, Tornadoes, Fire, Explosions, Hair/Fur, Floods, Text Effects
- Motion Tracking, Chroma Compositing, Motion Graphics, Rotoscopy , Set Extension.

Contents:

UNIT I: Introduction to Visual Effects

Understanding Visual Effects, Categories, Types

UNIT II: Exploring Particles

Particle Simulation, Particle Emitters, Particle Rendering

UNIT III: Fluid Mechanics

Understanding Fluids, Building Simulation

UNIT IV: Compositing

Understanding Compositing, Physical Compositing, Mattes and Compositing, Digital Matting Methods and tools, Compositing Techniques, Digitally Processing Image and Footages.

UNIT V: Green and Blue Screens

Understanding Green/Blue Screen and Compositing, Rotoscoping Techniques

Reference Books:

1. The Green Screen Handbook
Author: Jeff Foster
2. Maya Studio Projects Dynamics
Author: Toddo Palamar
3. The Visual Effects Arsenal, Author: Bill Byrne
4. Creative After Effects, Author: Angie Taylor

Course Name: CONCEPT OF NEW MEDIA

L - T - P: Cr

Course Code: AMT-607

3 - 2 - 0: 05

Full Marks: 100

Theory: 28/70

Sessional: 15/30

DESCRIPTION: To match with today's digital world, this course is introduced to students to give them the knowledge and understanding of how New Media evolved with the evolution of technology. Students will learn about the fundamental principles, history and various applications of New Media in this course.

OBJECTIVE: The objective of this course is to teach students the theoretical part of New Media including history to understand the subject, as well as studio exercise on application of New Media through –

- Installation art – by using different forms of new media
- Digital media exploration
- TV, cinema as modern era communication media etc.

Course Content:

UNIT 1: Introduction to New Media

- Evolution of New Media - History to modern era
- Technology in New Media
- New Media culture – conventions and technique of old media

UNIT 2: Principles of New Media

- Discrete representation
- Numerical representation
- Automation
- Variability

UNIT 3: Concept of New Media

- Changing relationship of representation.
- Database as genre of new media.
- Logic of remediation.
- Concept of digital dialectic.
- Digital Cinema and the history of moving Image.
- The new language of cinema.

UNIT 4: Forms of New Media

- Installations - Sound art, Net art.
- Free software movement and open source.

- New media art installation and cross-media practice.
- Interactivity and interface: Models of interactive systems.

STUDIO EXERCISE

Students will be taught to understand the basic concept of New Media and how it is being used in different areas. Also students will have to perform small projects using New Media forms and different types of installations.

Text books / Reference books:

1. R. Grusin and J. D. Bolter, *Remediation: Understanding New Media*, MIT Press, 2000.
2. L. Manovich, *The Language of New Media*, MIT Press, 2001.
3. P. Lunenfeld (ed.), *The Digital Dialectic: New Essays on New Media*, MIT Press, 1999.
4. N. Wardrip-Fruin and N. Montfort (eds.), *The New Media Reader*, MIT Press, 2003.

UNIT 4: Expressing visual communication through-

- Graphic design
- Advertising
- Branding
- Packaging
- Typography
- Animation

STUDIO EXERCISE

Students will be taught to understand the basic concept of visual communication and how it is being used in different areas. Also students will have to perform small project work using different media to understand how visual communication is practically used.

Text books / Reference books:

1. Hoffman, Armin; Graphic design manual, Principles and Practice. Arthur Niggli Publisher, Multilingual edition. 2001
2. Lauer, David; Design Basics, Wadsworth Publishing, 1999
3. Frutiger, Adrian; Signs and Symbols: Their Design and Meaning by, Watson-Guptill Publications, 1998
4. Itten, Johannes; The Art of Color: The Subjective Experience and Objective Rationale of Color, Wiley Publications, 1997

2.

Course Name: TV AND RADIO PRODUCTION

L - T – P: Cr

Course Code: AMT-609

2 – 0 – 0: 02

Full Marks: 100

Theory: 28/70

Sessional: 15/30

Unit-I

- Introduction to Radio as a Mass- Medium
- Types of News Bulletins
- Compilation of News: Pool copy, Compiling News Bulletins
- Radio Programme production: Basic Equipments
- Concept of MW, SW and FM
- Microphone: Importance, Types.
- Elements of Radio Script: Spoken, immediate, person to person, heard only once sound only,
feel, think, entertain, & inform

Unit-II

- Production elements of Radio programmes: Aural Sense Appeal, narration, dialogue, sound effect, Rapid Getaway, music, silence etc.
- Art of writing different Radio Programme Formats:Talk, Radio Play, Feature, Interview etc
- Radio as a tool of development
- Future of Radio: FM, Online Radio, Visual radio, Satellite radio
- Community Radio: Concept & Importance
- Interactive broadcasting, educational broadcasting
- News caster, Commentator, Presenter, Anchoring, Announcing, Comparing

Unit-III

- Types of Television Programme
- Visualizing ideas & Story Board
- Idea Development & Research for Production
- Different formats of television programs: news, interview, discussion, PSA
- Basic shots: CU, ECU, MS, LS, OSS etc
- Guidelines for script writing
- Difference between ENG & EFP
- T.V. News: Basic style: PTC, Stand up shot etc.

Unit-IV

- Preparing T.V. visuals: Simplicity, Contrast, Balance, Composition
- T.V. shooting technique: Shot classification, Framing, Movement
- Television camera optics: View finder, Lens, Focal length, Focus, f stop, Depth of field
- Television production Crew: Talent, Camera operator, Floor manager, Audio switcher, Video switcher, Director etc

- Light: Key, back & Fill
- Documentary Production: History, Importance
- Audio mixing and SFX
- Importance of Editing

Suggested Readings:

1. Technique of Radio Production: Robert McLeish: Focal Press London
2. Broadcasting and the people: Masani Mehra: National Book Trust New Delhi
3. Indian Broadcasting: H.R. Luthra: Publication Division New Delhi
4. Radio drama-Theory and Practice: Tim Crook London
5. Broadcast news writing, Reporting and Producing: Ted White: Focal Press
6. Broadcast Journalism: Andrew Boyd: Focal Press

Course Name: Major Project

L – T – P: Cr

Course Code: AMT- 699

0 – 0 – 8: 08

Full Marks: 200

Practical: 40/100

Sessional: 40/100

Students will have to do a major project with a guide who has specialized in the area the students have chosen to pursue. The major project would serve as their Show Reel or Demo Reel, which in turn would enable the student to apply for a position in any Animation/Multimedia industry after they have passed out.

SUBMISSION:

- Project Report
- Video Show Reel/Demo Reel (1-3 min duration)
