

**Yashwantrao Chavhan Maharashtra Open
University, Nashik**

School of Continuing Education

Syllabus

of

B Sc Media Graphics & Animation

Programme Code: T97

BMG 101: Introduction to Computers and Internet

UNIT 1: INTRODUCTION TO COMPUTERS

1.0 Before We Begin

1.1 Unit Objectives

1.2 What is a computer?

1.3 What makes a computer powerful?

1.3.1 Speed:

1.3.2 Reliability:

1.3.3 Accuracy

1.3.4 Storage

1.3.5 Diligence

1.3.6 Versatility

1.3.7 Power of Remembering

1.3.8 No “intelligence”

1.3.9 No Feelings

1.4 THE HISTORY OF COMPUTERS

1.4.1 Types of calculating Machines

1.4.2 Napier’s Bones

1.4.3 Slide Rule

1.4.4 Pascal’s adding & subtracting machines

1.4.5 Leibniz’s multiplication and division machines

1.4.6 Babbage’s analytical engine

1.4.7 Mechanical calculator

1.5 Electrical Calculator

1.5.1 Modern Electronic Calculator

1.6 Computer Generations

1.6.1 First generation computers (1939-1954): Vacuum Tube

1.6.2 Second generation computers (1954-1959): Transistors:

1.6.3 Third generation computers (1959-1971): IC

1.6.4 Fourth generation (1939-1954): Microprocessors

1.6.5 Fifth generation computers (1991 & beyond)

1.7 Types of Computers

1.8 Workstations

1.9 Mainframe

1.9.1 Differences between Mainframe and supercomputers

1.9.2 Characteristics of Mainframe

1.10 Supercomputer

1.11 Servers

Hardware requirement

1.12 Summary

1.13 Key Terms

1.14 End Questions

1.15 References

UNIT 2: COMPUTER ORGANIZATION

- 2.0 Before We Begin
- 2.1 Unit Objectives
- 2.2 Basic Computer Operations
 - 2.2.1. Input
 - 2.2.2 Processing
 - 2.2.3 Control
 - 2.2.4 Output
 - 2.2.5 Storage
- 2.3 Functional Unit
 - 2.3.1 Arithmetic And Logic Unit (Alu)
 - 2.3.2 Control Unit
 - 2.3.3 Central Processing Unit (Cpu)
- 2.4 Memory System In A Computer
- 2.5 Capacity Of Primary Memory
 - 2.5.1. Primary Memory / Volatile Memory:
 - 2.5.2 Secondary Memory / Non Volatile Memory:
- 2.6 Secondary Storage
 - 2.6.1 Magnetic Tape
 - 2.6.2 Magnetic Disc
 - 2.6.3 Floppy disc
 - 2.6.4 Optical Disc
- 2.7 Summary
- 2.8 Key Terms
- 2.9 End Questions
- 2.10 References

UNIT 3: SOFTWARE APPLICATIONS

- 3.0 Before We Begin
- 3.1 Unit Objectives
- 3.2 Word Processing
 - 3.2.1 MAIN FEATURES OF WORD PROCESSING
 - 3.2.1 The 'Create File' Menu
 - 3.2.2 The Format Menu
 - 3.2.3 The Print Option
- 3.3 Spreadsheets
- 3.4 Html Editor
- 3.5 Desktop Publishing
- 3.6 Types (Levels) Of Software
 - 3.6.1 System Software
 - 3.6.2 Programming Software
 - 3.6.3 Application Software
- 3.7 Database
- 3.8 Queries
- 3.9 Graphics Programs
- 3.10 Drawing Programs
- 3.11 Paint
 - 3.11.1 History
 - 3.11.2 Windows 7 and later

- 3.11.3 Future
- 3.11.4 Features
- 3.11.5 Support for indexed palettes
- 3.12 Animation and Video Programs
 - 3.12.1 Computer Animation
 - List of 2D animation software
 - List of 3D animation programs
 - 3.12.2 Computer-assisted vs. computer-generated
 - 3.12.3 Video Programs
 - 3.12.4 List of video editing software
- 3.13 Presentation Programs
 - 3.13.1 Features
- 3.14 Communication Programs
 - 3.14.1 History
 - 3.14.2 Chat
- 3.15 The File Transfer Protocol (FTP)
- 3.16 Chat and Instant Messaging
 - 3.16.1 Chatiquette
 - 3.16.2 Instant messaging (IM)
- 3.17 Project Management Programs
 - 3.17.1 Predecessors
 - 3.17.2 Emergence of the ‘project management’ term and modernized techniques
 - 3.17.3 The first project management products and associations
 - 3.17.4 SaaS and cloud-based project management software
 - 3.17.5 Tasks and activities
 - 3.17.6 Types
- 3.18 Integrated Software
- 3.19 Summary
- 3.20 Key Terms
- 3.21 End Questions
- 3.22 References

UNIT 4: INPUT TO COMPUTERS

- 4.0 Before We Begin
- 4.1 Unit Objectives
- 4.2 Types Of Input Hardware
- 4.3 Keyboard
 - 4.3.1 Types of Keyboards
 - 4.3.2 Keyboard Layout
 - 4.3.3 Key Types
- 4.4 Pointing Devices
 - 4.4.1 Mouse
 - 4.4.2 Trackball
 - 4.4.3 Touchpad
 - 4.4.4 Light Pens
 - 4.4.5 *Touch Screens*
 - 4.4.6 Digitizers and Graphic Tablet
- 4.5 Game Devices
- 4.6 Point-Of-Sale (Pos) Terminal
- 4.7 What Is Multimedia?
 - 4.7.1 Multimedia Tools

- 4.7.2 Elements of Multimedia
- 4.8 Sound Input
- 4.9 Voice Input
 - 4.9.1 Changing Voice To Data
 - 4.9.2 Types Of Voice Recognition Systems
- 4.10 Video Input
- 4.11 Data Automation
- 4.12 General Devices
- 4.13 Optical Character Recognition Software
- 4.14 Summary
- 4.15 End Questions

UNIT 5 DATA PROCESSING

- 5.0 Before We Begin
- 5.1 Unit Objectives
- 5.2 What Is Processing?
- 5.3 processing digital data
- 5.4 DIGITAL codes
- 5.5 parity
- 5.6 machine cycles & speed
 - 5.6.1 Components of a simple Digital System
 - 5.6.2 How does the System execute a program?
 - 5.6.3 Initiating the cycle
- 5.7 memory addresses
 - 5.7.1 Physical addresses
 - 5.7.2 Logical addresses
 - 5.7.3 Contents of each memory location
 - 5.7.4 Memory Address and size of Memory
- 5.8 processor speed
 - 5.8.1 Historical milestones and current records
- 5.9 physical components
 - 5.9.1 Microprocessor
 - 5.9.2 Random-access memory
- 5.10 motherboard
 - 5.10.1 Design
- 5.11 INDUSTRY STANDARD ARCHITECTURE (ISA)
 - 5.11.1 8-Bit ISA Slots
 - 5.11.2 Peripheral Component Interconnect (PCI) Slots
 - 5.11.3 Memory Slots
- 5.12 CONNECTORS
 - 5.12.1 RAM Connectors
 - 5.12.2 Input-Output Connectors
 - 5.12.3 Power connections
- 5.13 PROCESSOR SOCKET
- 5.14 summary 3
- 5.15 key terms
- 5.13 end questions
- 5.14 REFERENCES

UNIT 6: OUTPUT DEVICES

- 6.0 Before We Begin
- 6.1 Unit Objectives
- 6.2 Forms Of Output
 - 6.2.1 Display Devices
 - 6.2.2 Input/Output
 - 6.2.3 Types Of Output
 - 6.2.4 Graphics (Visual)
 - 6.2.5 Tactile
 - 6.2.6 Audio
 - 6.2.7 Examples Of Output Devices
- 6.3 Printer
 - 6.3.1 Types Of Printers
 - 6.3.2 Technology
 - 6.3.3 Attributes
- 6.4 Screen Display Technologies
 - 6.4.1 Cathode Ray Tube
 - 6.4.2 Liquid Crystal Display
 - 6.4.3 Organic Light-Emitting Diode (Oled)
- Measurements Of Performance
- Additional Features
- 6.5 Speakers
- 6.6 Summery
- 6.7 Key Terms
- 6.8 References

UNIT 7: DATA STORAGE

- 7.0 Introduction
- 7.1 Unit Objectives:
 - Cylinder Head Sector Method

Unit 8: Internet Basics

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Introduction To The Internet
 - 8.2.1 Interoperable
 - 8.2.2 Packet Switching
 - 8.2.3 Data Network
 - 8.2.4 Connecting To The Internet
 - 8.2.5 Internet Services: E-Mail, Telnet And Www
- 8.3 World Wide Web (Www)
 - 8.3.1 Universal Resource Locator (Url)
 - 8.3.2 Gopher: Its Origin
 - 8.3.3 Stagnation Of Gopher
 - 8.3.4 Availability Of Gopher Today
 - 8.3.6 Gopher Clients
 - 8.3.7 Gopher To Http Gateways
 - 8.3.8 Gopher Characteristics
 - 8.3.9 Technical Details And Protocol
- Url Links And Related Technology

- 8.3.10 Gopher Server Software
- 8.4 History Of The Internet
 - 8.4.1 Ip Addresses
 - 8.4.2 Domain Name
 - 8.4.3 Need To Register Your Domain Name
 - 8.4.4. Repeater
 - 8.4.5 Bridge
 - 8.4.6 Router
 - 8.4.7 Brouter
 - 8.4.8 Firewall
 - 8.4.9 Ethernet: Packet-Filtering Firewalls
 - 8.4.10 Search Engine
- 8.5 Summary
- 8.6 Key Terms
- 8.7 End Questions
- 8.8 References

UNIT 9: THE STUDY OF THE INTERNET

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Web Directories
 - 9.2.1 Range Of Listing
 - 9.2.2 Human-Edited Directories
 - 9.2.3 Bid For Position Directories
 - 9.2.4 Automated Submission Of Web Directories
 - 9.2.5 Working Of A Web Directory
- 9.3 Search Engines Basics
 - 9.3.1 Different Search Engines
- 9.4 Altavista
 - 9.4.1 Alta Vista Search Home Page
 - 9.4.2 Searching With Altavista
 - 9.4.3 Altavista Search Features
- 9.5 Excite
- 9.6 Hotbot
- 9.7 Lycos
 - 9.7.1 Lycos Home Page
 - 9.7.2 Lycos Search
 - 9.7.3 Lycos Features
- 9.8 Web Crawler
 - 9.8.1 Overview
 - 9.8.2 Crawling Policies
 - 9.8.3 Selection Policy
 - 9.8.4restricting Followed Links
 - 9.8.5 Url Normalization
 - 9.8.6 Path-Ascending Crawling
 - 9.8.7 Focused Crawling
 - 9.8.8 Academic-Focused Crawler
 - 9.8.9 Re-Visit Policy
 - 9.8.10 Politeness Policy
 - 9.8.11 Parallelization Policy
 - 9.8.12 Web Crawler Architectures

- 9.9 Meta-Search Engines
 - 9.9.1 Advantages
 - 9.9.2 Disadvantages
 - 9.9.3 Operation
 - 9.9.4 Spamdexing
 - 9.9.5 Example: Profusion
- 9.10 Web Portal
 - 9.10.1 History:
 - 9.10.2 Types Of Portals
- 9.11 My Yahoo
- 9.12 Search Strategies
- 9.13 Beyond The Basics: Thinking Critically About Websites
- 9.14 Evaluation Of Information Sources
- 9.15 How To Be Net Savvy
- 9.16 Summary
- 9.17 Key Terms
- 9.18 End Questions

UNIT 10: MICROSOFT WORD XP 2007

- 10.0 Before We Begin
- 10.1 Unit Objectives:
- 10.2 Microsoft Word
 - 10.2.1 Title Bar
 - 10.2.2 Menu Bar 10.2.3 Ruler
 - 10.2.4 Different Types Of Document View
 - 10.2.5 Area For Text
- 10.3 Important Options
 - 10.3.3 Selecting The Text By Highlighting
 - 10.3.4 Choosing Menu Commands By Using The Alt Key
 - 10.3.5 Shortcut Notations
 - 10.3.6 Starting A New Paragraph
 - 10.3.7 Exiting Microsoft Word
- 10.4 Microsoft Word: Basic Features
 - 10.4.1 Typing And Using The Backspace Key
 - 10.4.2 Delete Key
 - 10.4.3 Inserting Text
- 10.5 Some Basic Features
 - 10.5.1 Open File
 - 10.5.2 Cut And Paste
 - 10.5.3 Copy And Paste
 - 10.5.4 Spell Check
 - 10.5.5 Find And Replace
 - 10.5.6 Font Size:
- 10.6 Working With Paragraphs
 - 10.6.1 Space Before And Space After
 - 10.6.2 Line Spacing
 - 10.6.3 First-Line Indent
 - 10.6.4 Indentation
 - 10.6.5 Alignment
 - 10.6.6 Hanging Indent 0
 - 10.6.7 Save File And Exit Ms Word

10.7 Tab Key, Butteting Numbering Undo, Redo, Printing And Help

10.7.1 Tab Key

10.7.2 Bullets And Numbering

10.7.3 Undo And Redo

10.7.4 Save File

10.7.5 File Close

10.7.6 Open New File

10.7.7 Printing

10.7.8 Print Your Document

10.7.9 Alternate Method: Printing By Using Short Key Command

10.7.10 Alternate Method: Printing By Using The Icon

10.8 Tables

10.8.1 Creating A Table

10.8.2 Moving Around A Table

10.8.3 Entering Text Into A Table

10.8.4 Selecting A Row And Highlighting (Marking Bold) The Text

10.8.5 Right –Aligning Text

10.8.6 Adding A New Row At The End Of The Table

10.8.7 Adding A Row Within The Table

10.8.8 Resizing The Columns

10.8.9adding A New Column To A Table

10.8.10 Sorting A Table

10.8.11 Sum Function

10.8.12 Deleting A Row

10.8.13 Deleting A Column

10.8.14 Merge Cell

10.8.15 Recalculate

10.8.16 Table Headings

10.8.17 Converting Text To Table

10.8.18. Splitting A Table

10.8.19. Table Auto Format

10.8.20. Save File

10.9 Summary

10.10 Key Terms

10.11 End Questions

10.12 References

Course: BMG 102: DRAWING & SKETCHING

Unit 1 : Introduction To Drawing

Introduction

- 1.1 Unit objectives
- 1.2 Introduction To Drawing
- 1.3 How To Draw
- 1.4 How To Choose A Pencil
- 1.5 How To Improve Your Drawing Skills
- 1.6 How To Ink A Drawing
- 1.7 How To Sketch
- 1.8 Summary
- 1.9 Key Terms
- 1.10 End Questions

Unit 2 : Drawing Shapes and Forms

2.0 Introduction

- 2.1 Unit Objectives
- 2.2 Shape And Forms
- 2.3 How to draw a Box
- 2.4 How to draw a circle
- 2.5 How to draw a cylinder
- 2.6 How to draw a hexagon
- 2.7 How to draw a perfect pentagram
- 2.8 How to draw octagonal based pyramid
- 2.9 How to draw cartoon car
- 2.10 How to draw a simple house
- 2.11 Summary
- 2.12 Key terms
- 2.13 End Question

Unit 3 : Drawing Text and Lettering

3.0 Introduction

- 3.1 Unit Objectives
- 3.2 How to Draw 3D Block Letters
- 3.4 How to Make an Ambigram
 - 3.4.1 Types of Ambigram
 - 3.4.2 Steps for Drawing an Ambigram
- 3.5 How to Have Beautiful writing
- 3.6 How to Improve Your Calligraphy Writing
- 3.7 How to Design a Logo
 - 3.7.1 Principles of Effective Logo Design
 - 3.7.2 Designing a Logo
- 3.8 Summary
- 3.9 Key Terms
- 3.10 End Questions
- 3.11 Further Reading

Unit 4 : Drawing Realistic and Cartoon Characters

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 How to Draw Basic Human Figures
- 4.3 How to Draw Body
- 4.4 How to Draw People
- 4.5 How to Draw Realistic People
- 4.6 How to Draw Human Faces
- 4.7 How to Draw Cartoon Man
- 4.8 How to Draw Funny Looking Face
- 4.9 How to Draw Simpsons Character
- 4.10 Summary
- 4.11 Key Terms
- 4.12 END QUESTIONS

Unit 5 : Drawing Animals

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 How to Draw Realistic Animals with Depth
- 5.3 How to Draw an Elephant
- 5.4 How to Draw a Horse
- 5.5 How to Draw a Bird
- 5.6 How to Draw a Cat
- 5.7 How to Draw a Dog
- 5.8 How to Draw a Pig
- 5.9 How to Draw a Dog's Face
- 5.10 How to Draw a Frog

Unit 6 : Cartoon and Comic Drawing

- 6.0 Introduction
- 6.1 Unit objectives
- 6.2 How To Draw A Cartoon Face
- 6.3 How To Draw A Bubble Woman
- 6.4 How To Draw A Cartoon Cat
- 6.5 How To Draw A Cut Cartoon Person
- 6.6 How To Draw A Cartoon Monkey
- 6.7 How To Draw A Stick Figure
- 6.8 How To Draw Monsters
- 6.9 How To Draw A Sea Creature
- 6.10 Summary
- 6.11 Key Terms
- 6.12 End Questions

Unit 7 : Perspective Drawing

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Introduction to Perspective Drawing
- 7.3 One point perspective
- 7.4 Two point perspective
- 7.5 Summary

7.6 Key Terms

7.7 End Questions

7.8 Further Reading

Course: BMG 103: Colour Theory

UNIT 1 : COLOUR THEORY: OVERVIEW

- 1.0 Introduction
 - 1.1 Unit Objectives
 - 1.2 Colour Balance And Chromatic Colours
 - 1.3 Colour Scheme
 - 1.4 Traditional Colour Theory
 - 1.4.1 Warm and cool colours
 - 1.4.2 Achromatic colors
 - 1.4.3 Complementary colors
 - 1.4.4 Tints and shades
 - 1.4.5 Split Primary Colours
 - 1.5 Historical background
 - 1.6 Colour Harmony And Colour Meanings
 - 1.7 Emotional Response To Colours
 - 1.8 Physiological Principle For Effective Use Of Colour
 - 1.8.1 Mechanism of dichromatic color vision
 - 1.8.2 Human Visual System
 - 1.8.3 Phototransduction
 - 1.8.5 Difference between Rods and Cones
 - 1.8.6 Function
 - 1.8.7 Signaling
 - 1.8.8 Ganglion cell
 - 1.9 Lens
 - 1.9.1 Position, size, and shape
- BMG 103: Color Theory Page
- 1.9.2 Lens Structure and Function
 - 1.9.3 Accommodation: changing the power of the lens
 - 1.9.4 Crystallins and Transparency
- 1.10 Retina
 - 1.11 Human Brain
 - 1.12 Effective use of colours
 - 1.14 SUMMARY
 - 1.15 END QUESTIONS

UNIT 2 : COLOUR BASICS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Colour Systems
- 2.3 Working With Colour Systems
 - 2.3.1 Subtractive colour scheme
 - 2.3.2 Additive colour scheme
 - 2.3.3 Working with systems
- 2.4 COLOUR WHEEL
 - 2.4.1 COLOR RELATIONSHIPS
 - 2.4.2 Color wheels and paint color mixing
 - 2.4.3 Color wheel software
 - 2.4.4 Colour Scheme

- 2.5 COLOUR RELATIONSHIP
 - 2.5.1 Complementary Colours
 - 2.5.2 Perceptual Opposites
 - 2.5.3 Color Combinations
- 2.6 Colour Contrast
- 2.7 Itten's Colour Contrast
- 2.8 Proportion And Intensity
- 2.9 Contrast And Dominance
- 2.10 Colour Shades And Tints
- 2.11 Colour Studies Of Complementary Relationships
- 2.12 Summary
- 2.13 Key Terms
- 2.14 End Questions

UNIT 3 : COLOUR HARMONY

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Some Formulas For Colour Harmony
 - 3.2.2 Colour Scheme Based On Analogous Colours
 - 3.2.3 Colour Scheme Based On Complementary Colour
 - 3.2.4 Colour Scheme Based On Nature
- 3.3 Colour Context
- 3.4 Different readings of the same colour
- 3.5 classic colour schemes
 - 3.5.1 Monochromatic colors
 - 3.5.2 Complementary colors
 - 3.5.3 Split-Complementary
 - 3.5.4 Triadic colors
 - 3.5.5 Tetradic colors
- Rectangle
- Square
- 3.6 Summary
- 3.7 Key Terms
- 3.8 End Questions

UNIT 4 : COLOUR MEANINGS

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Colour Meanings And Colours That Go Together
- 4.3 Cool Colours
- 4.4 Warm Colours The Colours Of Excitement
- 4.5 Mixed Warm And Cool Colour Scheme
- 4.6 Neutral Colours
- 4.7 More About Colours
- 4.8 Summary
- 4.9 Key Terms
- 4.10 End Questions

UNIT 5 : COLOUR MODEL

- 5.2.7 Vertebrate evolution of color vision
- 5.3 LIGHT

- 5.3.1 Electromagnetic spectrum and visible light
- 5.3.2 Speed of light
- 5.3.3 Light sources
- 5.3.4 Units and measures
- 5.3.5 Historical theories about light, in chronological order
- 5.4 CIE CHROMATICITY DIAGRAM(CIE 1931 color space)
 - 5.4.1 Tristimulus values
 - 5.4.2 Meaning of X, Y and Z
 - 5.4.3 CIE standard observer
 - 5.4.4 Computing XYZ From Spectral Data
 - 5.4.5 CIE xy chromaticity diagram and the CIE xyY color space
 - 5.4.6 Definition of the CIE XYZ color space
- 5.5 RGB color model
- 5.6 CMYK Model
 - 5.6.1 Halftoning
 - 5.6.2 Benefits of using black ink
 - 5.6.3 Other printer color models
 - 5.6.5 Conversion
- 5.7 Hue
 - 5.7.1 Computing hue
 - 5.7.2 Hue vs. dominant wavelength
 - 5.7.3 Hue difference:
 - 5.7.4 Names and other notations for hues
- 5.8 Saturation
- 5.9 Value Color Model
- 5.10 Intuitive Color Concept
- 5.11 SUMMARY
- 5.12 KEY TERMS
- 5.13 END QUESTIONS
- 5.14 REFERENCES

UNIT 6 : PSYCHOLOGY OF COLOUR

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Colour Psychology: An Overview
 - 6.2.1 Influence of color on perception
 - 6.2.2 Color preference and associations between color and mood
 - 6.2.3 General model
 - 6.2.4 Specific color meaning
 - 6.2.5 Individual differences
 - 6.2.6 Color and sports performance
 - 6.2.7 Color and time perception
- 6.3 Utilizing Psychological Effects In Painting
- 6.4 How To Judge Your Colour Selection
- 6.5 Characteristic Colour Combinations
- 6.6 Colours In Photography Versus Colours In Painting
- 6.7 Colours In Painting Versus Colours In A Room
- 6.8 Summary
- 6.9 Key Terms
- 6.10 End Questions
- 6.11 References

Course: BMG 104 : TYPOGRAPHY

UNIT 1 : TYPE TECHNOLOGY HISTORY AND EMERGENCE

- 1.0 Introduction
- 1.1 Unit objectives
- 1.2 History of Type Technology- The Four Revolutions
 - 1.2.1 Mosaic Form
 - 1.2.2 Gutenberg (ca. 1450-1480) & The Impact of Printing)
 - 1.2.3 Industrial Revolution Steam, Line-casting & Automated Punch-cutting (start 1870-95; end 1950-65)
 - 1.2.3 Photocomposition (Intertype et. al., start 1950-60, end 1975-85)
 - 1.2.4 Digital (start 1973-83)
- 1.3 Introduction To Typefaces
- 1.4 Classification of Typefaces
 - 1.4.1 Serif Type Styles - Old Style
 - 1.4.2 Serif Type Styles - Transitional
 - 1.4.3 Serif Type Styles - Modern
 - 1.4.4 Serifs - Slab Serif
 - 1.4.5 Decorative & Display Fonts
 - 1.4.6 Script, brush & Freehand Fonts
 - 1.4.7 Dingbat
- 1.5 Early Letterform
- 1.6 Summary
- 1.7 Key Terms
- 1.8 End Questions

UNIT 2 : TYPOGRAPHY

- 2.0 Introduction
- 2.1 Unit objectives
- 2.2 Typography Through The Ages
- 2.3 Concepts In Typography
- 2.4 Typographic Building Blocks
- 2.5 Elements of Font
- 2.6 Key Typographic Terms
- 2.7 For Choosing Typefaces
- 2.8 Summary
- 2.9 Key Terms
- 2.10 End Questions

UNIT 3 : TYPOGRAPHIC DESIGN CONSIDERATION

- 3.0 Introduction
- 3.1 Unit objectives
- 3.2 Typographic measurements
- 3.3 Hanging punctuation
- 3.4 Ligatures
- 3.5 Typographic hierarchy- size
- 3.6 Typographic hierarchy- weight
- 3.7 Steps to achieve Typographical hierarchy
- 3.8 Summery
- 3.9 Key terms

3.10 End Questions

UNIT 4 : IN-DESIGNS TUTORIAL FOR TYPOGRAPHIC DESIGNS

4.0 Introduction

4.1 Unit objectives

4.2 Simple Text Typing

4.3 Simple Formatting

4.4 Simple Table

4.5 Complex Formatting

4.6 Graphic Creation

4.7 Summery

4.8 Key Terms

4.9 End Questions

UNIT 5 : COPY PREPARATION DESIGN & LAYOUT

5.0 Introduction

5.1 Unit objectives

5.2 Copy Preparation

5.2.1 Creating a professional document

5.2.2 Dividing copy into different sections

5.2.3 Maintaining uniformity of style

5.2.4 Typesetting instructions

5.3 The Printers Point System

5.4 Principles Of Design

5.5 Margins

5.6 Layouts For Dtp And Printing

5.7 Facetypes And Their Classifications

5.8 Proofreading

5.9 Summery

5.10 Key Terms

5.11 End Questions

UNIT 6 : FILE AND FONT FORMATS

6.0 Introduction

6.1 Unit Objectives

6.2 File Formats

6.3 File Format Extensions

6.4 Font Formats

6.5 Font File Extensions

6.6 Summary

6.7 Key Terms

6.8 End Questions

Course: BMG 105 :Computer Graphics Part I Adobe Photoshop

UNIT 1 : PHOTOSHOP INTRODUCTION

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Image Design Evolution from Ages
- 1.3 Art Forms and Styles
- 1.4 What is Photoshop
- 1.5 RGB Colour space
- 1.6 Digital Image Types Vector and Bitmaps
- 1.7 Internet image standards
- 1.8 Summary
- 1.9 Key Terms

UNIT 2 : PHOTOSHOP WORKSPACE

- 2.0 Introduction
- 2.1 Objectives
- 2.2 The Photoshop Workspace
- 2.3 Preferences
- 2.3 Summary
- 2.4 Key Terms
- 2.5 End Questions

UNIT 3 : CREATING IMAGES

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Creating New Images
- 3.3 Bridge
- 3.4 Image Resizing: Magnification and Reduction
- 3.5 Scanning Image into Photoshop
- 3.6 Importing Images
- 3.7 History Palette
- 3.8 Taking Snapshot
- 3.9 Summary
- 3.10 Key Terms
- 3.11 End Questions

UNIT 4 : CREATING AND USING SELECTIONS

- 4.1 Selections and Channels
- 4.2 Multiple Selections
- 4.3 Modifying Selections
- 4.4 The Info Palette
- 4.5 Moving Selections

- 4.6 Selection Tool Options
- 4.7 Creating Selection in Quick Mask Mode
- 4.8 Summary
- 4.9 End Questions

UNIT 5 : PHOTOSHOP'S LAYERS

- 5.0 Learning Objective's
- 5.1 Layers
- 5.2 Using Layers
- 5.3 Creating New Layers
- 5.4 Text and Layers
- 5.5 Layer Styles
- 5.6 Managing Layers
- 5.7 Summary
- 5.8 End Questions

UNIT 6 : EDITING IMAGES

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Using the Painting and Drawing Tools
- 6.3 Pattern Stamp tool
- 6.4 Gradient Tool
- 6.5 Using type tools
- 6.6 Character Palette
- 6.7 Paragraph Palette
- 6.8 Fine-tuning Filters with Fades
- 6.9 Curves
- 6.10 Adjustment and Fill Layer
- 6.11 Summary
- 6.12 Key Terms
- 6.13 End Questions
- 6.14 Further Reading

UNIT 7 : EDITING VECTOR SHAPES

- 7.0 Introduction
- 7.1 Objectives
- 7.2 Working with Vector Content
 - 7.2.1 Type of paths
- 7.3 Creating a Selection from a path
 - 7.3.1 Understanding Vector Tools and Options
 - 7.3.2 Pen and Path Selection Tool Options
 - 7.3.3 Paths Panel
 - 7.3.4 Creating Vector Paths
 - 7.3.5 Creating Complex Paths
 - 7.3.6 Editing Paths
 - 7.3.7 Paths as Selections
 - 7.3.8 Sharing Paths between Documents and Applications
- 7.4 The Shape Tools
 - 7.4.1 Using Vector Shape Tools
 - 7.4.2 Creating Vector Shapes Layers
- 7.5 Generic Shape Tool Options

- 7.6 Combination Options
- 7.7 Layer Styles
 - 7.7.1 Editing Vector Shape Layers
 - 7.7.2 Using Vector Shape Presets
- 7.8 Summary
- 7.9 Key Terms
- 7.10 End Questions
- 7.11 Further Reading

UNIT 8 : CREATING STATIC IMAGES

- 8.0 Introduction
- 8.1 Objectives
- 8.2 Creating a Logo in Photoshop
- 8.3 Preparing Images for the Internet
- 8.4 Creating a Custom Logo
- 8.5 Summary
- 8.6 Key Terms
- 8.7 End Questions

Course: BMG 106: Computer Graphics Part-II: Adobe Illustrator

UNIT 1 UNDERSTANDING ILLUSTRATOR

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Illustrator's Role In The Field Of Digital Graphics
- 1.3 Get Your Hands Around Illustrator's Curves
 - 1.3.1 Anchor Points, Paths And Fills
 - 1.3.2 Use Illustrator With Other Programs
- 1.4 An Overview Of Illustrator
 - 1.4.1 Open A File
 - 1.4.2 Use The Window Menu To Organize Views
 - 1.4.3 Working With Palettes
- 1.5 Toolbox In Illustrator
 - 1.5.1 Tools
 - 1.5.1 Tools In Illustrator
 - 1.5.2 Tearoffs Function Of Adobe Illustrator
 - 1.5.3 Pen Tools
 - 1.5.4 Line Segment Tools
 - 1.5.5 Rotate Tool
 - 1.5.6 Wrap Tool
 - 1.5.7 Sprayer Tool
 - 1.5.8 Eyedropper Tool
 - 1.5.9 Hand Tool
 - 1.5.10 Direct Selection Tool
 - 1.5.11 Type Tools In Adobe Illustrator
 - 1.5.13 Scale Tool
 - 1.5.14 Pencil Tool
 - 1.5.15 Graph Tools In Adobe Illustrator
 - 1.5.16 The Blend Tool
 - 1.5.17 The Scissor Tool
- 1.6 Fills And Views
- 1.7 Summary
- 1.8 Key Terms
- 1.9 End Questions
- 1.10 Further Reading

UNIT 2 CREATING DOCUMENTS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Set Up A New Document
 - 2.2.1 Open A New Document
 - 2.2.2 Create A New Document
 - 2.2.3 Open Existing File
 - 2.2.4 Create An Artboard
- 2.3 Customize Preferences
- 2.4 Set Default File And Clipboard Setting

- 2.5 Navigate Your Page
- 2.6 Summary
- 2.6 Key Terms
- 2.6 End Questions
- 2.9 Further Reading

UNIT 3 : DRAW WITH THE PENCIL AND BRUSH TOOLS

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Draw With The Pencil Tool
- 3.3 Edit Anchor Points With The Direct Selection Tool
- 3.4 Define Caps And Joins
- 3.5 Assign Stroke Or Fill Colors With The Eyedropper Or Paint Bucket Tool
- 3.6 Draw With The Brush Tool
- 3.7 Summary
- 3.8 Key Terms
- 3.9 End Questions
- 3.10 Further Reading

UNIT 4 : DRAW WITH THE PEN TOOL

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Pen Tool
- 4.3 Create And Edit Smooth Anchor Points
- 4.4 Draw Wave Forms
- 4.5 Manipulate Control Points
- 4.6 Edit With The Pen Tool
- 4.7 Edit With The Pen Tool
- 4.8 Summary
- 4.9 Key Terms
- 4.10 End Questions
- 4.11 Further Readings

UNIT 5 : WORK WITH SHAPES

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Shapes
- 5.3 Draw Shapes
- 5.4 Flare Tool
- 5.5 Pathfinder Tools And Use Of Shape Modes
- 5.6 Summary
- 5.7 Key Terms
- 5.8 End Questions
- 5.9 Further Readings

UNIT 6 : SCALE, SKEW AND ROTATE

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Scale, Skew, Rotate
- 6.3 View Bounding Box
- 6.4 Use More Transform Tools

- 6.5 Summary
- 6.6 Key Terms
- 6.7 End Questions
- 6.8 Further Reading

UNIT 7 : TEXT FORMATTING

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Format Characters
- 7.3 Define Stroke And Fill For Type
- 7.4 Format Paragraphs
- 7.5 Additional Functionalities
- 7.6 Summary
- 7.7 Key Terms
- 7.8 End Questions
- 7.9 Further Reading

UNIT 8 : IMPORT WORK

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Import Art
- 8.3 Importing Adobe Pdf Files
- 8.4 Artwork
- 8.5 Choose Between Importing And Linking
- 8.6 Trace Imported Bitmaps
- 8.7 Organize Bitmaps With The Links Palette
- 8.8 Summary
- 8.9 Key Terms
- 8.10 End Questions
- 8.11 Further Reading

UNIT 9 : FILTERS AND EFFECTS

- 9.0 Introduction
- 9.1 Unit Objective
- 9.2 Applying Effects
- 9.3 Two Types Of Effects
- 9.4 Appearance Panel Overview
- 9.5 Applying Filters
- 9.6 Applying A Gradient
- 9.7 Mashers
- 9.8 Summary
- 9.9 Key Terms
- 9.9 End Questions

Course: BMG 107 : TECHNICAL AND CREATIVE WRITING

UNIT 1 : ESSENTIAL GRAMMAR

- 1.0 Introduction
- 1.1 Units Objectives
- 1.2 Basic Sentence Patterns
 - 1.2.1 Constructing Sentence with Subject and Verb
 - 1.2.2 Constructing Sentences with Subject, Linking Verb and Subject Complement
 - 1.2.3 Constructing Sentences with Subject, Verb and Direct Object
 - 1.2.4 Constructing Sentences with Subject, Verb, Indirect Object and Direct Object
 - 1.2.5 Constructing Sentences with Subject, Verb, Direct Object and Object Complement
 - 1.2.6 Constructing Sentences using a Passive Voice/Pattern
 - 1.2.7 Simple Sentences
 - 1.2.8 Compound Sentences
 - 1.2.9 Complex Sentences
 - 1.2.10 Compound Complex Sentences
- 1.3 Basic Parts of a Sentence
 - 1.3.1 Subject
 - 1.3.2 Verb Phrase
 - 1.3.3 Predicate
 - 1.3.4 Subject Complement
 - 1.3.5 Direct Object
 - 1.3.6 Indirect Object
 - 1.3.7 Object Complement
- 1.4 Parts of Speech
 - 1.4.1 Noun
 - 1.4.2 Pronoun
 - 1.4.3 Verb
 - 1.4.4 Adjective
 - 1.4.5 Adverb
 - 1.4.6 Conjunction
- 1.5 Phrases and Clauses
 - 1.5.1 Phrase
 - 1.5.2 Clause
 - 1.5.3 Coordinated Elements
- 1.6 Summary
- 1.7 Key Terms
- 1.8 Questions and Exercises
- 1.9 Further Reading

UNIT 2 : BUSINESS CORRESPONDENCE AND APPLICATION LETTERS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Common Types of Application Letters
- 2.3 Common Sections in Application Letters
 - 2.3.1 Introductory Paragraph
 - 2.3.2 Main Body Paragraph
 - 2.3.3 Closing Paragraph

- 2.4 Background Details in the Application Letter
- 2.5 Common Problems in Application Letters
 - 2.5.1 Common Errors when Writing Application Letters
- 2.6 Complaint and Adjustment Letters
 - 2.6.1 Complaint Letters
 - 2.6.2 Adjustment Letters
 - 2.6.3 Inquiry Letters: Types and Contexts
 - 2.6.4 Solicited and Unsolicited Inquiry Letter
- 2.7 Summary
- 2.8 Key Terms
- 2.9 Questions and Exercises
- 2.10 Further Reading

UNIT 3 : BOOK DESIGN

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Components of a Book
 - 3.2.1 Putting a Book Together
- 3.3 Book Design and Layout
- 3.4 Lists
- 3.5 Graphics and Tables
 - 3.5.1 Graphics : An Overview
- 3.6 Drawings, Diagrams and Photos
 - 3.6.1 Uses of Illustrations and Photos
 - 3.6.2 Formatting Requirements
 - 3.6.3 Producing Illustrations
- 3.7 Tables
 - 3.7.1 Uses for Tables
 - 3.7.2 Table Format
 - 3.7.3 Producing Tables
- 3.8 Charts and Graphs
- 3.9 Documenting Graphics and Indicating Sources
- 3.10 Summary
- 3.11 Key Terms
- 3.12 Questions and Exercises
- 3.13 Further Reading

UNIT 4 : TECHNICAL WRITING

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Technical Reports
 - 4.3 Types of Technical Reports
 - 4.3.1 Technical Background Reports
 - 4.3.2 Feasibility, Recommendation and Evaluation Report
 - 4.3.3 Technical Specifications
 - 4.3.4 Primary Research Report
 - 4.3.5 Business Prospectus
 - 4.3.6 Report-Length Proposal
- 4.4 Audience and Situation in Technical Reports
 - 4.4.1 Audience Analysis

- 4.5 Topics in Technical Reports
- 4.6 General Characteristics of Technical Reports
- 4.7 Checklist for a Technical Report
- 4.8 Some More Technical Reports
- 4.9 Technical Background Reports
 - 4.9.1 Subjects and Organization of Technical Background Reports
- 4.10 Primary Research Reports
 - 4.10.1 Subjects and Organization of Primary Research Reports
- 4.11 Business Plans
 - 4.11.1 Sections of Business Plans
 - 4.11.2 Format of Business Plans
- 4.12 Technical Descriptions of Products or Product Requirements
 - 4.12.1 Contents and Arrangement of Specifications
 - 4.12.2 Graphics in Specifications
- 4.13 Summary
- 4.14 Key Terms
- 4.15 Questions and Exercises
- 4.16 Further Reading

UNIT 5 : CREATIVE WRITING

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Choose the Right Story Structures
 - 5.2.1 Consider the Full Package
 - 5.2.2 Consider Multi-Media
 - 5.2.3 Consider Interactivity
 - 5.2.4 Choosing the Structure of Your Text
 - 5.2.5 Consider Alternate Story Forms
- 5.3 Structures
 - 5.3.1 Types of Structures
 - 5.3.2 Narrative Structures
 - 5.3.3 Structural Devices
 - 5.3.4 Structural Issues
- 5.4 Summary
- 5.5 Key Terms
- 5.6 Questions and Exercises
- 5.7 Further Reading

UNIT 6 : CREATIVE WRITING PROCESS

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Getting Started to Write
 - 6.2.1 Time and Confidence
 - 6.2.2 Where do You Get Your Ideas?
 - 6.2.3 Oral and Visual Writing
 - 6.2.4 Drawing on Your Own Experiences
 - 6.2.5 Looking Back into Your Past
 - 6.2.6 Importance of Reading
- 6.3 Writing Non-Fiction
- 6.4 Writing for Children
- 6.5 Sending Your Work to a Publisher

- 6.6 Mind Mapping
- 6.7 Idea Collection Sheets
- 6.8 Categorizing Ideas
- 6.9 Converting to Mind Map Form
- 6.10 Converting to Linear Form
- 6.11 Summary
- 6.12 Key Terms
- 6.13 Questions and Exercises
- 6.14 Further Reading

Course: BMG 108 : INTRODUCTION TO MULTIMEDIA

UNIT 1 : INTRODUCTION TO MULTIMEDIA SYSTEM

- 1.0 Introduction
- 1.1 Objectives
- 1.2 What is Multimedia System
- 1.3 History of multimedia System
- 1.4 Feature of Multimedia System
 - 1.4.1 Challenges of Multimedia System
 - 1.4.2 Features of Multimedia System
 - 1.4.3 Components of Multimedia System
- 1.5 Trends in multimedia
- 1.6 Advantages and Disadvantages of Multimedia
 - 1.6.1 Advantages of multimedia
 - 1.6.2 Disadvantages of Multimedia
- 1.7 Summary
- 1.8 Key Terms
- 1.9 End Questions
- 1.10 Further Reading

UNIT 2 : MULTIMEDIA SYSTEM AND APPLICATIONS

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Categorization of multimedia
 - 2.2.1 Linear
 - 2.2.2 Non-Linear
- 2.3 History of Term 'Multimedia'
- 2.4 Characteristics of Multimedia
- 2.5 Applications of Multimedia (Usage)
 - 2.5.1 Creative Industries
 - 2.5.1.1 Mass Media
 - 2.5.1.2 Commercial
 - 2.5.1.3 Entertainment and fine arts
 - 2.5.2 Education
 - 2.5.3 Other Fields
- 2.6 Structuring Information in a multimedia form
- 2.7 Summary
- 2.8 Key Terms
- 2.9 End Questions

UNIT 3 : COMPUTER GRAPHICS

- 3.4.2.4 Advantages and Disadvantages of Vector Graphics
- 3.5 3D computer Graphics
 - 3.5.1 Computer Animation
- 3.6 Pioneers in graphic Design
- 3.7 History of Digital Images
 - 3.7.1 Pixel Storage
 - 3.7.2 Other Bitmap File Formats
- 3.8 Bitmap files Formats

- 3.8.1 Bitmap File Format
- 3.8.2 Bitmap File Structure
 - 3.8.2.1 Bitmap File Header
 - 3.8.2.2 Bitmap Information (DIB Header)
 - 3.8.2.3 Color Palette
 - 3.8.2.4 Bitmap Data
- 3.8.3 Usage of BMP Format and Related Formats
- 3.9 File Formats
- 3.10 Vector Editors versus Raster Graphics Editors
 - 3.10.1 Graphics File Format
 - 3.10.1.1 Raster Format
 - 3.10.1.2 Vector Format
 - 3.10.1.3 3D Format
- 3.11 Summary
- 3.12 Key Terms
- 3.13 End Questions

UNIT 4 : COMPUTER ANIMATION

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Early Animation Techniques
- 4.3 Innovation by Animators at Disney
- 4.4 Types of Animation
- 4.5 Software for Animation
 - 4.5.1 Renderers
- 4.6 Difference between Traditional Animation and Computer Animation
- 4.7 Pixar and Disney Studios
- 4.8 Summary
- 4.9 Key terms
- 4.10 Questions and Exercises
- 4.11 Further Reading

UNIT 5 : INTERACTIVE MEDIA

- 5.0 Introduction
- 5.1 Objective
- 5.2 Introduction to Interactive Media
- 5.3 World Wide Web
 - 5.3.1 Evolution of WWW
 - 5.3.2 Functions of WWW
- 5.4 Internet Forums
- 5.5 Computer Games
 - 5.5.1 History of Computer Games
- 5.6 Mobile Telephony
- 5.7 Interactive Television
- 5.8 Hypermedia
 - 5.8.1 Hypermedia Development Tools
- 5.9 Summary
- 5.10 Key Terms
- 5.11 Questions and Exercises
- 5.12 Further Reading

UNIT 6 : MULTIMEDIA HARDWARE

- 6.0 Introduction
- 6.1 Objective
- 6.2 Multimedia Computers
 - 6.2.1 Design and Technical Information
 - 6.2.2 Origin of Tramel Technology
 - 6.2.3 Operating System
- 6.3 Debut of the ST
 - 6.3.1 Port Connections
 - 6.3.2 Mega and Later Models
 - 6.3.3 Applications
 - 6.3.4 Other Models
- 6.4 Input Devices
 - 6.4.1 Video Material
 - 6.4.2 Voice Input
 - 6.4.3 Digital Camera
 - 6.4.4 Helping People with special Needs
 - 6.4.5 Data Accuracy
- 6.5 Output Devices
 - 6.5.1 Screen Size
 - 6.5.2 Imaging Technologies
 - 6.5.3 Performance Measurements
 - 6.5.4 Display Interface
 - 6.5.5 Modern Technology
 - 6.5.6 Flexible Display Monitors
 - 6.5.7 Configuration and Usege
 - 6.5.8 Additional Features
 - 6.5.9 Touch screen Technologies
 - 6.5.10 Construction of a Touch screen
 - 6.5.11 Development of Touch screens
 - 6.5.12 Ergonomics and Usage
 - 6.5.13 Tablet Screens
 - 6.5.14 Speakers
- 6.6 End User Hardware Issues
 - 6.6.1 Description of a Bus
 - 6.6.2 Bus Topology
- 6.7 Summary
- 6.8 Key Terms
- 6.9 End Questions
- 6.10 Further Reading

UNIT 7 : MULTIMEDIA IN EDUCATION

- 7.0 Introduction
- 7.1 Objectives
- 7.2 Introduction to Multimedia in Education
 - 7.2.1 Core Functions: Nature of Education and Training
 - 7.2.2 Nature of the Sector
 - 7.2.3 Multimedia of Education
 - 7.2.4 The Current Situation
 - 7.2.5 Usage of the Term Multimedia
- 7.3 Education Online

- 7.3.1 Advantages of Online Education
- 7.3.2 Goals and Benefits of E-Learning
- 7.3.3 Market
- 7.3.4 Approaches to E-Learning Services
- 7.3.5 E-Learning Technology
- 7.3.6 Content Issues
- 7.3.7 Technology Issues
- 7.4 Future to Interactive Media in Education
- 7.4.1 A Vision for the Future
- 7.4.2 Meltdown Scenarios
- 7.4.3 Universities
- 7.4.4 Vocational/Further Education
- 7.4.5 Schools
- 7.5 Summary
- 7.6 Key Terms
- 7.7 Questions and Exercises
- 7.8 Further Reading

UNIT 8 : MULTIMEDIA AND VIRTUAL REALITY

- 8.0 Introduction
- 8.1 Objectives
- 8.2 Fundamental of Multimedia and Virtual Reality
- 8.2.1 Terminology and Concepts
- 8.2.2 Timeline
- 8.2.3 Future
- 8.2.4 Impact
- 8.2.5 Heritage and Archaeology
- 8.2.6 Mass Media
- 8.2.7 Implementation
- 8.2.8 Challenges
- 8.3 Technology Issues
- 8.4 Computer Science Aspects of VR
- 8.4.1 Hardware for Computer Graphics
- 8.4.2 Notable Graphics Workstations and Graphics Hardware
- 8.4.3 Graphics Architectures for VE Rendering
- 8.4.4 Computation and Data Management Issues in Visual Scene Generation
- 8.4.5 Graphics Capabilities in PC-Based VE Systems
- 8.4.6 Interaction Software
- 8.4.7 Visual Scene Navigation Software
- 8.4.8 Geometric Modeling: Construction and Acquisition
- 8.4.9 Dynamic Model Matching and Augmented Reality
- 8.5 User Interface
- 8.5.1 Introduction
- 8.5.2 Usability
- 8.5.3 User Interfaces in Computing
- 8.6 Interaction with Geographic Information
- 8.6.1 Applications
- 8.6.2 History of Development
- 8.6.3 GIS Software
- 8.6.4 Semantics
- 8.6.5 Society
- 8.7 Applications

- 8.8 Potential
- 8.9 Summary
- 8.10 Key Terms
- 8.11 End Questions
- 8.12 Further Reading

UNIT 9 : MULTIMEDIA: APPLICATION AND FUTURE

- 9.0 Introduction
- 9.1 Objectives
- 9.2 Applications for multimedia
- 9.3 Future Applications
 - 9.3.1 Bokode: The Better Barcode
 - 9.3.2 Chameleon Guitar
 - 9.3.3 GIRLS involved in real-life sharing
 - 9.3.4 TOFU: A squash and Stretch Robot
 - 9.3.5 Merry Miser
 - 9.3.6 Mycrocosm
 - 9.3.7 Quickies
 - 9.3.8 SixthSense
- 9.4 Summary
- 9.5 Key Terms
- 9.6 End Questions

Course: BMG 109: Developing Presentation

UNIT 1 : DELIVERING PRESENTATION

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Analyzing an Audience
- 1.3 Avoiding Common Mistakes made by Presenters
- 1.4 Bad Delivery Habits
- 1.5 Do not Go Blank During your Presentation
 - 1.5.1 Following are the steps to do in your presentation.
 - 1.5.2 The following are the point regarding an activity of questions
 - 1.5.3 You can take following action in the unwanted situation are as follows:
- 1.6 Eliminating Filler Words and Action
- 1.7 Giving Your First Public Presentation
 - 1.7.1 Preparing
 - 1.7.2 Practicing
 - 1.7.3 Presenting
- 1.8 Integrating Movement In Presentation
 - 1.8.1 Various Forms of Body Language
- 1.9 Making Eye Contact With Your Audience
- 1.10 Overcoming Your Fear of Presenting
 - 1.10.1 First time presentation experienced following reaction
 - 1.10.2 The following reactions happened when person start talking
 - 1.10.3 Controlling this fear with the help of following points:
 - 1.10.4 Reasons behind the fear as following
 - 1.10.5 How do we overcome this fear?
 - 1.10.6 Prepared well
 - 1.10.7 Practice before session
 - 1.10.8 Additional material keeps ready
 - 1.10.9 Avoid Burdon of the audience
 - 1.10.10 Relax before speaking
 - 1.10.11 Observation
- 1.11 Planning Breaks During Presentation.
 - 1.11.1 Breaks needed in following condition
- 1.12 Presenting to Different Types of Audiences
- 1.13 Tips for Keeping Your Presentation Interesting
- 1.14 Summary
- 1.15 Key Terms
- 1.16 End Questions
- 1.17 Further Reading

UNIT 2 : VISUAL PRESENTATION

- 2.0 Introduction
- 2.1 Objectives
- 2.2 The Basics of File Compression
- 2.3 Capturing Bitmaps at the Correct Resolution for Projection
- 2.4 Choosing the Right Colors for your Next Presentation
- 2.5 Fonts and PowerPoint : True Type and Postscript
- 2.6 Graphic Types and Electronic Presentations

- 2.7 Quick Tips for Effective Visuals
- 2.8 Using Different Backgrounds Within A Single Presentation
- 2.9 Tips for Converting Multimedia Presentations to Html
- 2.10 Proper Use of Flipcharts
- 2.11 Summary
- 2.12 Key Terms
- 2.13 End Questions
- 2.14 Further Reading

UNIT 3 : KNOWING PROJECTORS

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Types of Projectors
- 3.3 Connecting Laptops to Projectors
- 3.4 Connecting Power Books to Projectors
- 3.5 Projector Cable
- 3.6 Connecting Projectors to Public Address System or External Speakers
- 3.7 Connecting Projectors to Video Devices
- 3.8 Setting Up Projectors And Determining The Correct Image Size
- 3.9 Summary
- 3.10 Key Terms
- 3.11 End Questions
- 3.12 Further Reading

UNIT 4 : INTRODUCTION TO POWERPOINT

- 4.0 Introduction
- 4.1 Objectives
- 4.2 The Purpose of PowerPoint
- 4.3 Capabilities of PowerPoint
 - 4.3.1 Text
 - 4.3.2 Graphics and Photographs
- 4.4 Using PowerPoint
 - 4.4.1 Opening a presentation
 - 4.4.2 Opening a PowerPoint file
 - 4.4.3 Creating a presentation
 - 4.4.4 Saving your presentation
 - 4.4.5 Closing the PowerPoint presentation.
- 4.5 Summary
- 4.6 Key Terms
- 4.7 End Questions
- 4.8 Further Reading

UNIT 5 : BASICS OF POWERPOINT IMAGES

- 5.0 Introduction
- 5.1 Objectives
- 5.2 Adding an Image
 - 5.2.1 Add Image from Clip Art
 - 5.2.2 Add Image from a file
 - 5.2.3 Add Image Using Auto Shapes
 - 5.2.4 Add Image using WordArt
 - 5.2.5 Add image using an Organization Chart

- 5.3 Changing Properties of Images
 - 5.3.1 Color and Lines
 - 5.3.2 Size of an Image
 - 5.3.3 Positioning of an Image
 - 5.3.4 Picture Quality
- 5.4 Image Handling Using Drawing Toolbar
- 5.5 Effect of Images on the Size
- 5.6 Summary
- 5.7 Key Terms
- 5.8 End Questions
- 5.9 Further Reading

UNIT 6 : MAKING POWERPOINT SLIDES

- 6.1 Objectives
- 6.2 Components of A PowerPoint Slide
- 6.3 Creating PowerPoint Slides
- 6.4 Handling Slide Layout
- 6.5 Views of PowerPoint Slides
 - 6.5.1 Slide view
 - 6.5.2 Outline View
 - 6.5.3 Show and hide Slide and Outline View
 - 6.5.4 Slider Sorter View
- 6.6 Presentation of Slides
 - 6.6.1 Design Template
 - 6.6.2 Color Schemes
 - 6.6.3 Animation Schemes
- 6.7 Define Your Own Templates
- 6.8 Insert Tables in Slides
- 6.9 Copy and Paster Slides
- 6.10 Change the Slide Order
- 6.11 Summary
- 6.12 Key Terms
- 6.13 End Questions
- 6.14 Further Reading

UNIT 7 : ENTERING TEXT IN A POWERPOINT SLIDE

- 7.0 Introduction
- 7.1 Objectives
- 7.2 Entering And Formatting Text
 - 7.2.1 Font: Type color and Size
 - 7.2.2 Changing Properties of Paragraphs
- 7.3 Bullets and Numbering
 - 7.3.1 Bullets in Your Slides
 - 7.3.2 Numbering in your Slides
- 7.4 Copy, Cut, Paste in PowerPoint
 - 7.4.1 Cut Function
 - 7.4.2 Copy Function
 - 7.4.3 Paste Function
- 7.5 Decorative Text Effect with Wordart And Autoshapes
 - 7.5.1 WordArt
 - 7.5.2 Auto Shapes

- 7.6 Checking Spelling in Your PowerPoint Presentation
- 7.7 Adding Notes to Your PowerPoint Slides
- 7.8 Summary
- 7.9 Key Terms
- 7.10 End Questions

UNIT 8 : VIEWING YOUR POWERPOINT SHOW

- 8.0 Introduction
- 8.1 Objectives
- 8.2 Slide Show of Your Presentation
 - 8.2.1 Full Screen Slide Show
 - 8.2.2 Short cut keys to run a slide Show from PowerPoint
 - 8.2.3 Run a slide Show from PowerPoint Show
- 8.3 Navigate Between Slides During A Presentation
 - 8.3.1 Go the Next Slide
 - 8.3.2 Go to the previous slide
 - 8.3.3 Go to a Specific Slide
 - 8.3.4 Go to a Previously Viewed Slide
 - 8.3.5 End the Slide show
 - 8.3.6 View Black or White Screen
- 8.4 Slide Transition
- 8.5 Show Option and 'Doodling' Onscreen
- 8.6 Printing Notes Pages
- 8.7 Printing Handout
- 8.8 Summary
- 8.9 Key Terms
- 8.10 End Questions
- 8.11 Further Reading

Course: BMG 110 : DESIGN PRINCIPLES

UNIT 1 : THE PRINCIPLES OF UNIVERSAL DESIGN

1.0 Introduction

- 1.1 Unit Objectives
- 1.2 Universal Design
- 1.3 Principles Of Universal Design
- 1.4 Summary
- 1.5 Key Terms
- 1.6 End Questions

UNIT 2 : PRINCIPLES OF GOOD GUI DESIGN

2.0 Introduction

- 2.1 Unit Objectives
- 2.2 Give Users Control
- 2.3 Gui Success
- 2.4 Understand People
- 2.5 Design For Clarity
- 2.6 Design For Consistency
- 2.7 Watch The Presentation Model
- 2.8 Control Design
- 2.9 Applying Design Principles
- 2.10 Implementing Effective Standards
- 2.11 Summary
- 2.12 Key Terms
- 2.13 End Questions

UNIT 3: COMPOSITION AND DESIGN

3.0 Introduction

- 3.1 Unit Objectives
- 3.2 Visual Elements
- 3.3 Some Design Principles
- 3.4 Visual Effects
- 3.5 Principles Of Art And Composition
- 3.6 Summary
- 3.7 Key Terms
- 3.8 End Question

UNIT 4 : CREATIVE THINKING TECHNIQUES

4.0 Introduction

- 4.1 Unit Objectives
- 4.2 Understand What Is Brainstorming
- 4.3 Various Methods Of Brainstorming

- 4.4 Variations In Brainstorming
- 4.4 Idea Generating Questions
- 4.7 Historical Examination
- 4.8 Block Busting Technique
- 4.9 Checklists
- 4.10 Summary
- 4.11 Key Terms
- 4.12 End Questions

UNIT 5 : TEACHING CREATIVITY

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Impact Of Freedom On Creativity
- 5.3 Imitation In Creative Process
- 5.4 Imitation And Skills
- 5.5 Ways To Generate Creative Ideas
- 5.6 Skills As A Prerequisite To Thinking And Creativity
- 5.7 Creativity, Drawing And Talent
- 5.8 Drawing And Creativity
- 5.9 Self Assessment As Creative Teaching
- 5.10 Summary
- 5.11 Key Terms
- 5.12 End Questions

UNIT 6 : DESIGN METHODS

- 6.0 Introduction
- 6.1 Unit objectives
- 6.2 Background of design methods
- 6.3 Formalization of design methods
- 6.4 Design management
- 6.5 Proliferation of information technology
- 6.6 Significance of proliferation of information technology
- 6.7 Design planning
- 6.8 Summary
- 6.9 Key terms
- 6.10 Exercises and questions
- 6.11 Further reading

Course: BMG 111: Print Media–I: CorelDraw

UNIT 1 : OBJECT OVERVIEW

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Working With Coreldraw
 - 1.2.1 Opening CorelDRAW
 - 1.2.2 Main Window of CorelDRAW
 - 1.2.3 Creating New Drawing File
 - 1.2.3 Creating New Drawing File
 - 1.2.4 Menu:
 - 1.2.5 Dockers Overview
 - 1.2.6 Toolbars
 - 1.2.6.1 Pick tool overview
 - 1.2.7 Saving a Drawing File
 - 1.2.8 Opening an Existing Drawing File
 - 1.2.9 Closing the File
 - 1.2.10 Quitting/Closing CorelDRAW
- 1.3 Creating Different Objects
 - 1.3.1 Creating Basic Drawings
 - 1.3.2 Creating Lines and Curves
- 1.4 Zooming And Panning:
- 1.5 Setting View Modes
- 1.6 Working With Wireframe View
- 1.7 Working With Page Layout
- 1.8 Printing Drawings
 - 1.8.1 Printer Setting
 - 1.8.2 Print Preview
 - 1.8.3 Print
- 1.9 Hints For Learning Coreldraw
- 1.10 Summery
- 1.11 Key Terms
- 1.12 End Question
- 1.13 Project

UNIT 2 : TOOLS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Selecting objects
- 2.3 Cut, Copy or Duplicate an object
- 2.4 Copy Object Properties
- 2.5 Moving Objects
- 2.6 Align the object
- 2.7 Distribute objects
- 2.8 Group and Ungroup Objects
- 2.9 Changing Object Order
- 2.10 Undo Redo Revert Commands
- 2.11 Transforming Objects
- 2.12 Working with shapes

2.13 Summary

2.14 Key terms

UNIT 3 : FILL TOOL

3.0 Introduction

3.1 Unit Objectives

3.2 Selecting Colours

3.3 Working With Colour Palette

3.4 Fill Types

3.5 Uniform Fills

3.6 The Fountain Fill

3.7 Using Fills To Areas

3.8 Working With Fills

3.9 Summary

3.10 Key Terms 1

3.11 Questions And Exercises

UNIT 4 : PATTERN FILL

4.0 Introduction

4.1 Unit Objectives

4.2 Using Pattern Fills

4.3 Using Two-Colour Pattern Fills

4.4 Using Full-Colour Pattern Fills

4.5 Using Bitmap Pattern Fills

4.6 Using Texture Fills

4.7 Using Postscript Fills

4.8 Using Mesh Fills

4.9 Summary

4.10 Key Terms

4.11 End Questions

4.12 Project

UNIT 5 : TEXT TOOL

5.0 Introduction

5.1 Unit Objectives

5.2 Creating Text

5.3 Selecting Text

5.4 Converting Text

5.5 Changing The Appearance Of Text

5.5.1 Changing Font

5.6 Aligning Text

5.7 Changing The Text Spacing

5.8 Shifting And Rotating The Text

5.9 Finding And Replacing The Text

5.10 Applying Effects To Text

5.11 Fitting Text To An Object's Path

5.12 Wrapping Paragraph Text Around Objects

5.13 Summary

5.14 Key Terms

5.15 End Questions

5.16 Project

UNIT 6 : VECTORS AND BITMAP

6.0 Introduction

6.1 Unit Objectives

6.2 Converting Vector Images To Bitmaps

6.3 Cropping, Resampling, And Resizing Bitmaps

6.4 Applying Special Effects To Bitmaps

6.5 Working With Colour And Tone Of Bitmaps

6.6 Working With Bitmap Colour Modes

6.7 Tracing Bitmaps And Editing Traced Results

6.8 Summary

6.9 Key Terms

6.10 Project

UNIT 7 : IMPORT AND EXPORT

7.0 Introduction

7.1 Unit Objectives

7.2 Importing A File

7.3 Edit Bitmap Import

7.4 Edit Imported Vector Image

7.5 Exporting A File

7.6 Summary

7.7 Key Terms

7.8 Questions And Exercises

7.9 Project

Course: BMG 112: Print Media Part-II: QuarkXPress

UNIT 1 : INTRODUCTION TO QUARKXPRESS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Basics Of Quarkxpress
- 1.3 Working With Items
- 1.4 Summary
- 1.5 Key Terms
- 1.6 End Questions

UNIT 2 : SETTING UP QUARKXPRESS PREFERENCES: PART ONE

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Display Preferences
- 2.3 Input Setting Preferences
- 2.4 Font Fallback Preferences
- 2.5 Undo Preferences
- 2.6 Open And Save Preferences
- 2.7 Extensions Manager Preferences
- 2.8 Sharing Preferences
- 2.9 Font Preferences
- 2.10 File List Preferences
- 2.11 Default Path Preferences
- 2.12 Eps Preferences
- 2.13 Full Res Preview Preferences
- 2.14 Browser Preferences
- 2.15 Index Preferences
- 2.16 Job Jackets Preferences
- 2.17 Pdf Preferences
- 2.18 Psd Import Preferences
- 2.19 Placeholder Preferences
- 2.20 Spell Check Preferences
- 2.21 Fraction/Price Preferences
- 2.22 Picture Effect Preferences
- 2.24 Key Terms
- 2.26 Further Reading

UNIT 3 : SETTING UP QUARKXPRESS PREFERENCES: PART TWO

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Project Preference
- 3.4 Tools
- 3.5 Palettes
- 3.6 Summary
- 3.7 Key Terms
- 3.8 End Questions
- 3.9 Further Reading

UNIT 4 : IMAGES WITH EMBEDDED CLIPPING PATHS

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Bitmap Pictures
- 4.3 Working With Pictures
- 4.4 Working With Clipping Paths
- 4.5 Working With Alpha Mask And Psd Pictures
- 4.6 Summary
- 4.7 Key Terms
- 4.8 End Questions
- 4.9 Further Reading

UNIT 5 :CREATING PAGE ELEMENTS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Master Pages, Page Numbers And Sections
- 5.3 Creating Automatic Page Numbers
- 5.4 Creating Libraries
- 5.5 Summary
- 5.6 Key Terms
- 5.7 End Questions
- 5.8 Further Reading

UNIT 6 : RECOVERING AND PREVENTING DATA LOSS

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Save Preferences
- 6.3 Repairing Quarkxpress Documents
- 6.5 Key Terms
- 6.6 End Questions
- 6.7 Further Reading

UNIT 7 : APPENDING HYPHENATION AND JUSTIFICATION

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Controlling Hyphenation And Justification
- 7.3 Inserting A Discretionary Hyphen
- 7.4 Adding Hyphenation Exceptions
- 7.5 Summary
- 7.6 Key Terms
- 7.7 End Questions
- 7.8 Further Reading

UNIT 8 : STROKED TEXTS

- 8.0 Introduction
- 8.1 Unit Objectives

- 8.2 Creating Stroked Texts
- 8.3 Summary
- 8.4 Key Terms
- 8.5 End Questions
- 8.6 Further Reading

UNIT 9 : WORKING WITH EPS FILES

- 9.0 Introduction 5
- 9.1 Unit Objectives
- 9.2 Encapsulated Post Script
- 9.4 Summary
- 9.5 Key Terms
- 9.6 End Questions
- 9.7 Further Reading

UNIT 10 : WEB LAYOUT

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 Creating A Web Layout
- 10.3 Defing A Default Web Browser
- 10.4 Previewing A Web Layout
- 10.5 Configuring Pictures And Text Boxes For The Web
- 10.6 Exporting A Web Layout
- 10.7 Hyperlinks, Menus And Image Maps
- 10.8 Html Forms
- 10.9 Summary
- 10.10 Key Terms
- 10.11 End Questions
- 10.12 Further Reading

Course: BMG – 201: Introduction to Web Development

UNIT 1 : WEB DEVELOPMENT PROCESS

- 1.0 Introduction
- 1.1 Unit Objective
- 1.2 Software to Create Your Website
 - 1.2.1 Website Creation Program
 - 1.2.2 Image Editing Program
- 1.3 What Makes a Good Website?
 - 1.3.1 A Good Website is Compelling
 - 1.3.2 A Good Website Clearly Meets Identified Goals
 - 1.3.1 A Good Website is Easy to Navigate
 - 1.3.2 A Good Website is Visually Attractive
- 1.4 How to Plan Your Website
 - 1.4.1 Collection of Information
 - 1.4.2 Define your target audiences
 - 1.4.3 Create a list of Content
 - 1.4.4 Diving this List into Webpages
 - 1.4.5 Create a sitemap
 - 1.4.6 Create a Navigation Scheme
- 1.5 Design and Layout
 - 1.5.1 Create a Consistent Visual Theme
 - 1.5.2 Align Various Elements on the Web Page
 - 1.5.3 Create a Responsive Web Design
 - 1.5.4 Use Color Contrast and Text Weight Effectively
 - 1.5.5 Group similar Elements Together
 - 1.5.6 Make intelligent use of Images
- 1.6 Create Your Web Page
- 1.7 How to Put Your Website on the Internet
 - 1.7.1 Get a Host
 - 1.7.2 Get a Domain Name
 - 1.7.3 Your Username and Password
 - 1.7.4 Software to Transfer Files to Your website
- 1.8 Summary
- 1.9 Key Terms
- 1.10 Questions
- 1.11 Bibliography

UNIT 2 : SITE DESIGN

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Organizing Information
 - 2.2.1 Chunking Information
 - 2.2.2 Hierarchy of Importance
 - 2.2.3 Relations
 - 2.2.4 Functions
- 2.3 Site Structure
- 2.4 Site design

- 2.4.1 Basic Information structures
- 2.5 Site Design Themes
- 2.6 Summary
- 2.7 Questions and Exercise
- 2.8 Bibliography

UNIT 3 : IMAGES

- 3.0 Introduction
- 3.1 Unit Objective
- 3.2 Use Images Purposefully
- 3.3 Avoid Animated Images
- 3.4 Provide Alt-text for all Relevant Images
- 3.5 Do Not Use Graphics Text
- 3.6 Provide a Full Text Description for Content Images
- 3.7 Provide Blank Alt-Text for Irrelevant or Redundant Images
- 3.8 Maintain a Catalogue of Image Content
- 3.9 Keep Image Dimension as Small as Possible
- 3.10 Use Thumbnails for Large Images
- 3.11 Summary
- 3.12 Key Terms
- 3.13 Questions and Exercises
- 3.14 Bibliography

UNIT 4 : ISSUES IN WEBSITE DESIGNING

- 4.0 Introduction
- 4.1 Unit Objective
- 4.2 Website Design
 - 4.2.1 Design elements
 - 4.2.2 Other Elements
 - 4.2.3 Fixed Layout and Liquid Layout
 - 4.2.4 Flash
 - 4.2.5 Tables and CSS
 - 4.2.6 Form and Function
- 4.3 Issues in Web Designing
 - 4.3.1 Web usability
 - 4.3.2 Speed
- 4.4 Accessible Web Design
 - 4.4.1 Examples of Web accessibility
- 4.5 Website Planning
- 4.6 Summary
- 4.7 Questions and Exercise
- 4.8 Bibliography

UNIT 5 : THE BASICS OF NAVIGATION

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Types of Site Navigation
 - 5.2.1 Internal Links with Anchor Tags
- 5.3 Styles of Site Navigation
- 5.4 Types of Navigation
 - 5.4.1 Absolute and Relative Paths

- 5.4.2 Locking relative URLs with the BASE element
- 5.5 Net Objects
- 5.6 Tips for Website Navigation
- 5.7 Summary
- 5.8 Key Terms
- 5.9 Questions and Exercises
- 5.10 Bibliography

UNIT 6 : WEB TYPE

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Type Matters
 - 6.2.1 Font and their Types
 - 6.2.2 Customizing Text with Character Styles
 - 6.2.3 Italicizing Text
 - 6.2.4 Bolding Text
 - 6.2.5 Preformatting Text
- 6.3 Type on the Web
 - 6.3.1 Adding Superscripts and Subscripts Using HTML and CSS
 - 6.3.2 Using the Font and Basefont Elements
 - 6.3.3 Scalability and Absolute Measurement
 - 6.3.4 Inline Style
 - 6.3.5 Using the Relative Size in Standard HTML Coding
 - 6.3.6 Comparing Font Size with Heading Size
 - 6.3.7 Overriding Default Font Faces
 - 6.3.8 Aligning and Indenting Text
 - 6.3.9 Dealing with Deprecation
 - 6.3.10 Indenting with BLOCKQUOTE
 - 6.3.11 Type Form
 - 6.3.12 Other Typographic Considerations
 - 6.3.13 Anti-Aligning and Font Smoothing
 - 6.3.14 Combining Type
- 6.4 Type Classification
- 6.5 Facing Fonts
- 6.6 Graphics Text
- 6.7 Sending Fonts with Your Web Page
 - 6.7.1 Approaching Web Typography
- 6.8 Line-Lengths
- 6.9 Special Character and Entities
- 6.10 Installing AND using Web Fonts
 - 6.10.1 To Add a New Font
 - 6.10.2 To Remove a Font
- 6.11 Summary
- 6.12 Key Terms
- 6.13 Questions and Exercises
- 6.14 Bibliography

UNIT 7 : CLIENT- SERVER ARCHITECTURE

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Characteristics

- 7.2.1 Hitting the Wall
- 7.2.2 The Processor
- 7.2.3 The Application
- 7.2.4 What is a Server?
- 7.2.5 Elements of an Architecture Design
- 7.3 Architectural Components
 - 7.3.1 Server-based Architectures
 - 7.3.2 Client-based Architectures
- 7.4 Comparison with Client-Queue-Client Architecture
- 7.5 Comparison with Peer-to-Peer Architecture
 - 7.5.1 P2P Networks: Characteristics and a Three-Level Model
 - 7.5.2 Examples of P2P Clients
 - 7.5.3 Legal Issues about P2P (IPR)
- 7.6 Client-Server Architectures
 - 7.6.1 Client-Server Tiers
- 7.7 Advantages and Disadvantages of Architecture Options
 - 7.7.1 Cost of Infrastructure
 - 7.7.2 Cost of Development
 - 7.7.3 Difficulty of Development
 - 7.7.4 Interface Capabilities
 - 7.7.5 Control and Security
 - 7.7.6 Scalability
- 7.8 Summary
- 7.9 Key Terms
- 7.10 Exercises and Questions
- 7.11 Further Reading

UNIT 8 : INTRODUCTION TO E-COMMERCE

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Business Strategy – An Introduction
- 8.3 Building on Existing Pre-Internet Models
- 8.4 Online Businesses
- 8.5 Types of E-Business
 - 8.5.1 The Advantages of E-commerce
- 8.6 E-Commerce Infrastructure
- 8.7 Future of the E-Business
 - 8.7.1 Future Trends
- 8.8 Summary
- 8.9 Key Terms
- 8.10 End Questions
- 8.11 Bibliography

UNIT 9 : WEB SERVICES

- 9.0 Introduction
- 9.1 Unit Objective
- 9.2 Web Services Paradigm - Introduction
 - 9.2.1 Service-Oriented Architecture
- 9.3 Advantages and Disadvantages of Web Services
 - 9.4.1 Advantages
 - 9.4.2 Disadvantages

- 9.4 Typical Web Services Invocation
- 9.5 Web Services Architecture
 - 9.5.1 Global XML Web Service Architecture
- 9.6 Web Service Interoperability
- Summary
- Key Terms
- Questions
- Bibliography

UNIT 10 : WEB ADVERTISING

- 10.0 Introduction
- 10.1 Unit Objective
- 10.2 Web Advertising Strategies
 - 10.2.1 Methods of Web Advertising
- 10.3 Web Advertising vs Traditional Advertising
- 10.4 Advantages and disadvantages of Web Advertising
- 10.5 Successful Web Design Guideline and Components
- 10.6 Effectiveness of Web Advertising
- 10.7 Summary
- 10.8 Key Terms
- 10.9 Questions and Exercises
- 10.10 Bibliography

Course: BMG 202: HTML

UNIT 1 : INTRODUCTION TO HTML

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 HTML Introduction
 - 1.2.1 HTML and World Wide Web
 - 1.2.2 Delivery Mechanism of HTML document on World Wide Web
- 1.3 Linear Media
- 1.4 Hypermedia
- 1.5 HTML Markup
- 1.6 Document Structure
 - 1.6.1 HTML tags
- 1.7 A Basic Document
 - 1.7.1 Special Characters
- 1.8 Home Page
- 1.9 Summary
- 1.10 Key Terms
- 1.11 Questions and Exercises
- 1.12 Further Reading

UNIT 2 : OVERVIEW

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Choosing a Text Editor
- 1.3 Starting NotePad
- 1.4 Creating a basic starting document
 - 1.4.1 Setting Document Properties
- 1.5 Color Codes
- 1.6 Document Definition
- 1.7 The Body Element
- 1.8 Text Color
- 1.9 Link
 - 1.9.1 Vlink and Alink
- 1.10 Using Image Backgrounds
- 1.11 Previewing Your Work
- 1.12 Save and View Cycle
- 1.13 Summary
- 1.14 Key Terms
- 1.15 Questions and Exercises
- 1.16 Further Reading

UNIT 3 : CONTENT AND CHARACTER FORMATTING AND LISTS

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Headings
- 3.3 Paragraph `<p>..</p>`
- 3.4 Breaks `
` and Horizontal Rules `<HR>`
- 3.5 Address Element

- 3.6 Form Element
- 3.6.1 Element used in form element
- 3.7 Table Element
- 3.8 Division Element
- 3.9 Centre and Block quote Element
- 3.10 Character Formatting
- 3.10.1 Bold
- 3.10.2 Italic and other Character Formatting Elements
- 3.10.3 Alignment
- 3.11 Special Characters and Symbols
- 3.11.1 Additional Characters
- 3.11.2 Formatting Elements
- 3.12 List Elements
- 3.12.1 UL-Unordered List
- 3.12.2 OL-Ordered List
- 3.12.3 DL-Definition List
- 3.13 Nesting List
- 3.14 Summary
- 3.15 Key Terms
- 3.16 Questions and Exercises
- 3.17 Further Reading

UNIT 4 : IMAGES

- 4.0 Introduction
- 4.1 Unit objectives
- 4.2 Supported Image Formats
- 4.2.1 Limited Support Image Format
- 4.3 Non-Supported Image Format
- 4.4 Inserting Images
- 4.5 Additional Image Attributes
- 4.6 Summary
- 4.7 Key Terms
- 4.8 Questions and Exercises
- 4.9 Further Reading

UNIT 5 : LINKS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Link Elements
- 5.3 Types of Link
- 5.4 Uniform Resource Locators
- 5.4.1 URL Encoding
- 5.5 Hyper Text Transport Protocol
- 5.6 File Transfer Protocol
- 5.7 News
- 5.7.1 News Groups
- 5.7.2 Gopher
- 5.7.3 E-Mail
- 5.8 Telnet: Remote Terminal Emulation
- 5.9 Internal Links
- 5.10 Image Maps

- 5.10.1 Server-Side Image Maps
- 5.10.2 Client-Side Image Maps
- 5.11 Summary
- 5.12 Key Terms
- 5.13 Questions and Exercises
- 5.14 Further Reading

UNIT 6 : TABLE

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Introduction to Tables
- 1.3 Table Attributes
 - 1.3.1 Align Attribute
 - 1.3.2 Width Attribute
 - 1.3.3 Border Attribute
 - 1.3.4 Cell spacing Attribute
 - 1.3.5 Cell padding Attribute
 - 1.3.6 Putting all Table Attributes Together
- 1.4 Table Caption
 - 1.4.1 Table Row Element
 - 1.4.2 Table Cell Element
- 1.5 Table Header and Data
 - 1.5.1 Table Header Attributes
- 1.6 Nesting Tables
- 1.7 Summary
- 1.8 Key Terms
- 1.9 Questions and Exercises
- 1.10 Further Reading

UNIT 7 : FRAMES

- 7.0 introduction
- 7.1 Unit Objectives
- 7.2 Frames
- 7.3 Frame Page Architecture
 - 7.3.1 Creating Frame Page
- 7.4 Other key attributes of frameset element
 - 7.4.1 Compound frameset divisions
- 7.5 Targets and Special Target
- 7.6 Summary
- 7.7 Key Terms
- 7.8 Questions and Exercises
- 7.9 Further Reading

UNIT 8 : FORMS

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Forms
- 8.3 Form Elements
- 8.5 Common Gateway Interface
 - 8.5.1 CGI Programming
- 8.6 Intranet Application Development Architectures

- 8.7 Summary
- 8.8 Key Terms
- 8.9 Questions and Exercises
- 8.10 Further Reading

UNIT 9 : JAVA

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Java
- 9.3 Java applet and application
 - 9.3.1 Java Application
- 9.4 <param>
- 9.5 JavaScript
 - 9.5.1 Checking the validation of credit card number in JavaScript
 - 9.6.2 Built in functions
- 9.6 Summary
- 9.7 Key Terms
- 9.8 Questions and Exercises
- 9.9 Further Reading

UNIT 10 : ACTIVE X SUPPORT

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 Active x support and control
- 10.3 Active x ID
- 10.4 Code Base
- 10.5 VB Script
- 10.6 VB Script
- 10.7 Key Terms
- 10.8 Questions and Exercises
- 10.9 Further Reading

UNIT 11 : ANIMATED PAGES

- 11.0 Introduction
- 11.1 Unit Objectives
- 11.2 Uses of Media Element
- 11.3 Client Pull
- 11.4 Page Animation
- 11.5 Description and Keywords
- 11.6 Adding Sound to an HTML Page
- 11.7 Embed
- 11.8 BG Sound
- 11.9 Adding video to an HTML Page
- 11.10 Animation Elements
- 11.11 Marquee
- 11.12 Blink
- 11.13 Summary
- 11.14 Key terms
- 11.15 Questions and Exercises
- 11.16 Further Reading

UNIT 12 : PAGE LAYOUT

- 12.0 Introduction
- 12.1 Unit Objectives
- 12.2 Technical Design Considerations
- 12.3 Document size vs Download teime
- 12.3.1 Page loading
- 12.4 HTTP 1.0
- 12.4.1 Difference between HTTP 1.0 and HTTP 1.1
- 12.5 Browser Compatibility and Quirks
- 12.6 Page layout Guidelines
- 12.7 Site Design Factors and Criteria
- 12.8 Site Layout and Navigation
- 12.9 Summary
- 12.10 Key Terms
- 12.11 Questions and Exercises
- 12.12 Further Reading

UNIT 13 : CASCADING STYLE SHEET

- 13.0 Introduction
- 13.1 Unit Objectives
- 13.2 Introduction to Cascading Style Sheet (CSS)
- 13.3 Properties of CSS
- 13.4 Inline Style
- 13.5 Embedded Style Sheets
- 13.6 Linked Style Sheets
- 13.7 Classes and Ids
- 13.7.1 Classes
- 13.7.2 Ids
- 13.8 DIV and SPAN
- 13.9 Cascadubg and Inheritance
- 13.10 Summary
- 13.11 Key Terms
- 13.12 Questions and Exercises
- 13.13 Further Reading

Course: BMG 203: Introduction to Flash

UNIT 1 : INTRODUCTION TO FLASH

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Introduction to Adobe Flash CS6
 - 1.2.1 New Features of Flash CS6
- 1.3 Using the Flash Interface
- 1.4 Creating a New Document
- 1.5 Changing Movie Properties
- 1.6 Flash Panels
- 1.7 Using the Movie Explorer
- 1.8 Summary
- 1.9 Key Terms
- 1.10 End Questions
- 1.11 Further Reading.

UNIT 2 : CRATING GRAPHICS IN FLASH

- 1.0 Introduction
- 2.1 Unit Objectives
- 2.2 Creating Graphics
 - 2.2.1 Line Tool (N)
 - 2.2.2 Pen Tool (O)
 - 2.2.3 Oval Tool (O)
 - 2.2.4 Rectangle and PolyStar Tool ®
 - 2.2.5 Pencil Tool (Y)
 - 2.2.6 Brush Tool (B)
 - 2.2.7 Misc Tool
- 2.3 Using Color Effectively
- 2.4 Layering Flash Elements
- 2.5 Masking Content
- 2.6 Organizing Content in Flash
- 2.7 Reusing Graphics as Symbols
- 2.8 Summary
- 2.9 Key Terms
- 2.10 End Questions
- 2.11 Further Reading.

UNIT 3 : USING TEXT EFFECTIVELY IN FLASH

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Using Text Effectively
- 3.3 Using the Text Tool
 - 3.3.1 Static Text
- 3.4 Anti-Aliasing Text
- 3.5 Embedded Fonts versus Device Fonts
- 3.6 Using Components in Flash
- 3.7 Building Forms in Flash
- 3.8 Summary

- 3.9 Key Terms
- 3.10 End Questions
- 3.11 Further Reading

UNIT 4: FLASH ANIMATION

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Introduction to Flash Animation
- 4.3 Tweened Animation
 - 4.3.1 Creating Motion Tweens
 - 4.3.2 Creating Shape Tweens
- 4.4 Creating Frame-by-Frame Animation
- 4.5 Using Motion guide Layers
- 4.6 Adding timeline Effects
- 4.7 Summary
- 4.8 Key Terms
- 4.9 End Questions
- 4.10 Further Reading

UNIT 5 : UNDERSTANDING MOVIE CLIPS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Using Nested Symbols
- 5.3 Using Movie Clip Events
- 5.4 Summary
- 5.5 Key Terms
- 5.6 End Questions
- 5.7 Further Reading

UNIT 6 : ADDING SOUND AND VIDEO

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Importing Sound
- 6.3 Using Behaviors to Load Sound
- 6.4 Adding Videos
- 6.5 Using the Flash Media Components
- 6.6 Summary
- 6.7 Key Terms
- 6.8 End Questions
- 6.9 Further Reading

UNIT 7 : PUBLISHING FLASH MOVIES

- 7.0. Introduction
- 7.1 Unit Objectives
- 7.2 Publishing Flash movies
 - 7.2.1 Publishing Flash Movies for Web Use
 - 7.2.2 Publishing Flash Movies for CD-ROMs
- 7.3 Flash and HTML
- 7.4 Evaluating Download Performance
- 7.5 Summary

- 7.6 Key Terms
- 7.7 End Questions
- 7.8 Further Reading

UNIT 8 : NAVIGATING A MOVIE IN FLASH

- 8.0 Introduction
- 8.1 Unit Objective
- 8.2 Creating Buttons
- 8.3 Adding Behaviors to Buttons
- 8.4 Creating Movie Clips
- 8.5 Dividing Files into Multiple SWF Files
- 8.6 Summary
- 8.7 Key Terms
- 8.8 End Questions
- 8.9 Further Reading

Course: BMG 204: CONTENT DIGITIZATION

UNIT 1 : THE DIGITIZATION

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 What is Digitization?
 - 1.2.1 Advantages of digitization
 - 1.2.2 Disadvantages of digitization
 - 1.2.3 Storage for digitization
- 1.3 Fit for Purpose
- 1.4 Compression
 - 1.4.1 Advantages of compression
 - 1.4.2 Disadvantages of compression
 - 1.4.3 Lossless and lossy compression
 - 1.4.4 Compressing Different file types
 - 1.4.5 Popular Compression Software
- 1.5 Pathways
- 1.6 Digital Objects
 - 1.6.1 Text Based
 - 1.6.2 Image Based
 - 1.6.3 Time Based
- 1.7 Data Models
 - 1.7.1 Choosing a data model
 - 1.7.2 List
 - 1.7.3 Hierarchy
 - 1.7.4 Sets
 - 1.7.5 Geography/geometry
- 1.8 Choosing software
- 1.9 Summary
- 1.10 Key Terms
- 1.11 End Questions

UNIT 2 : CAPTURING VIDEO IN MOVIE MAKER 2

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Choosing the Format
 - 2.2.1 DV-AVI format
 - 2.2.2 Windows Media Video 9
- 2.3 Improving Capture Performance in Movie Maker
 - 2.3.1 Defragmenting Your Hard Drives
 - 2.3.2 Install a Faster Hard Drive
 - 2.3.3 Partition Your Drive as NTFS
 - 2.3.4 Get a second hard drive
 - 2.3.5 Use the Windows Media Codec
 - 2.3.6 Turn Your Preview Monitor Off
 - 2.3.7 Decrease Your Monitor Display Settings
- 2.4 Project Files in Movie Maker
- 2.5 Editing within Moviemaker 2
- 2.6 Summary

- 2.7 Key Terms
- 2.8 End Questions

UNIT 3 : DIGITIZING SOUND

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Sound
 - 3.2.1 Units for sound measuring
 - 3.2.2 Characteristics of Sound
 - 3.3.3 Sound Pressure Level
- 3.3 Analog Audio
- 3.4 Digital Audio
 - 3.4.1 Sampling
 - 3.4.2 Resolution
 - 3.4.3 Quantization
 - 3.4.4 Dithering
 - 3.4.5 Clipping
 - 3.4.6 Bit-Rates
 - 3.4.7 Dynamic Range
 - 3.4.8 Signal-to-noise Ratio
 - 3.4.9 Encoding
- 3.5 Advantages and disadvantages of Digital Audio
- 3.6 File size and bandwidth
- 3.7 Compression
- 3.8 Summary
- 3.9 Key Terms
- 3.10 End Questions

UNIT 4 : DIGITAL VIDEO CAPTURING

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Digital video recording
 - 4.2.1 Digital Video Recorder (DVR)
 - 4.2.1.1 Types of DVRs
- 4.3 Video Capture Device-Analog Video to PC
- 4.4 High-Definition (HD) Options for Digital Video recording
 - 4.4.1 Satellite Alternatives
 - 4.4.2 Cable Alternatives
 - 4.4.3 Sony HD DVRs
- 4.5 Capture Cards
- 4.6 Summary
- 4.7 Key Terms
- 4.8 End Questions

UNIT 5 : DIGITIZING FILE FORMATS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 File Format Glossary
 - 5.2.1 TIFF
 - 5.2.2 JPEG
 - 5.2.3 DjVu

- 5.2.4 PDF
- 5.2.5 WAV
- 5.2.6 MP3
- 5.2.7 Real Audio
- 5.2.8 MPEG 21
- 5.3 Digitization file format
- 5.3.1 Images
- 5.3.2 Text
- 5.3.3 Data set
- 5.3.4 Audio
- 5.3.5 Video
- 5.4 Summary
- 5.5 Key Terms
- 5.6 End Questions

UNIT 6 : DIGITIZATION-SCANNING, OCR AND RE-KEYING

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 The digitization chain
- 6.3 Scanning and Image Capture
- 6.3.1 Hardware-Types of Scanner and Digital Cameras
- 6.3.2 Software
- 6.4 Image Capture and Optical Character Recognition
- 6.4.1 Imaging Issues
- 6.4.2 OCR Issues
- 6.5 Re-Keying
- 6.6 Summary
- 6.7 Key Terms
- 6.8 End Questions

UNIT 7 : MICROFORM

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 History
- 7.3 Uses of Microfilm
- 7.4 Advantages and Disadvantages of Microfilm
- 7.5 Readers and Printers
- 7.6 Microfilms and Cards used in Media
- 7.7 Image creation
- 7.7.1 Film
- 7.7.2 Cameras
- 7.7.2.1 Microfiche camera
- 7.7.2.2 Roll film camera
- 7.7.2.3 Flow roll camera
- 7.7.2.4 Flat film
- 7.7.2.5 Computer output microfilm
- 7.8 Storage and preservation
- 7.9 Duplication
- 7.10 Digital conversion
- 7.11 Format conversion
- 7.12 Summary

- 7.13 Key Terms
- 7.14 End Questions

UNIT 8 : RECOMMENDATION FOR MICROFILM DIGITIZATION

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Picture Quality
- 8.3 Format and Compression
 - 8.3.1 Formats
 - 8.3.2 Data Compression and Decompression
- 8.4 Software Form
- 8.5 Software Requirement for Image Viewing
- 8.6 Hardware Requirement for Image Viewing
- 8.7 Long-term Preservation of the Digital Conversion form (Migration)
- 8.8 Financial Viability
- 8.9 Digitization and Optical Character Recognition
- 8.10 Summary
- 8.11 Key Terms
- 8.12 End Questions

UNIT 9 : GIS AND SCANNING TECHNOLOGY

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Working of a Scanner
- 9.3 Types of Scanner
- 9.4 General Features of a Scanner
- 9.5 Types of Scanning
- 9.6 Processing of Scanned Document
- 9.7 Choice of Scanning or Digitization
- 9.8 Accuracy of Scanned Images
- 9.9 Scanning Products
- 9.10 Summary
- 9.11 Key Terms
- 9.12 End Questions

UNIT 10 : DIGITIZATION PROJECT MANAGEMENT

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 Project Planning
- 10.3 Copyright Issues Associated with Digitizing Images
- 10.4 Determining the Costs of a digitization Project
- 10.5 Standards and Guidelines to Consider
 - 10.5.1 Metadata
 - 10.5.2 Image Standard and Guidelines
 - 10.5.3 Preservation and Storage standards and Guidelines
 - 10.5.4 Presentation Device
 - 10.5.5 Transmission Issues
- 10.6 Selecting the Equipment and software
 - 10.6.1 Preparing Materials for Digitization
- 10.7 Workflow Process
- 10.8 Maintenance/Management and quality Control

- 10.8.1 Quality Control
- 10.9 Migration of Data to New Formats
- 10.10 Storage, backup and preservation
- 10.11 Summary
- 10.12 Key Terms
- 10.13 End Questions

Course: BMG 205: Content Authoring on Web Using Adobe Dream Weaver

UNIT 1 : DREAMWEAVER WORKSPACE

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Overview of the Dreamweaver Workspace
- 1.3 Toolbar Functions
 - 1.3.1 Using the Insert Toolbar
 - 1.3.2 Using the Document Toolbar
- 1.4 Showing or Hiding Windows Panel
 - 1.4.1 Understanding the Panel Dock
 - 1.4.2 Using the Properties Inspector
 - 1.4.3 Working with the Files Panel
- 1.5 Summary
- 1.6 Key Terms
- 1.7 Questions and Exercises
- 1.8 Further Reading

UNIT 2 : CREATING WEB PAGES

- 2.0 Introduction
- 2.1 Unit Objective
- 2.2 Creating a New Web Page
 - 2.2.1 Setting Up a New Site in Dreamweaver
- 2.3 Opening, Saving and Closing Web Pages
 - 2.3.1 Opening a page
 - 2.3.2 Saving a Page
 - 2.3.3 Creating a Close Button on Web Page
- 2.4 Previewing Web Pages
- 2.5 Summary
- 2.6 Key Terms
- 2.7 Questions and Exercises
- 2.8 Further Reading

UNIT 3 : USING TEXT

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Adding Headings
- 3.3 Adding Paragraphs
- 3.4 Aligning Paragraphs and Headings
 - 3.4.1 Indenting Entire Paragraphs
- 3.5 Inserting Text
 - 3.5.1 Cutting, Copying and Pasting
 - 3.5.2 Using Drag and Drop
 - 3.5.3 Inserting Text from Other Text Applications
- 3.6 Formatting Text
 - 3.6.1 Font Size
 - 3.6.2 Font Color

- 3.6.3 Font Type
- 3.6.4 Styling Your Text
- 3.7 Inserting Special Characters
- 3.8 Summary
- 3.9 Key Terms
- 3.10 Questions and Exercises
- 3.11 Further Reading

UNIT 4 : HYPERLINKS

- 4.0 Unit Objective
- 4.2 Introduction
- 4.3 Creating Hyperlinks
 - 4.3.1 Eliminating Underlines from Links
 - 4.3.2 Inserting URLs from the Assets Panel
- 4.4 Using a Named Anchor to Link within a Document
 - 4.4.1 Addressing Types
 - 4.4.2 Checking Links
- 4.5 Creating an E-mail Links
- 4.6 Refreshing the Page and Redirecting Users
 - 4.6.1 Meta tag: Refresh
 - 4.6.2 Window: setTimeout Method
- 4.7 Summary
- 4.8 Key Terms
- 4.9 Questions and Exercises

UNIT 5 : USING GRAPHICS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Inserting an Image
 - 5.2.1 Process of Placing a Graphic on Web Pages
 - 5.2.2 Dynamic Display of Images
 - 5.2.3 Addition of Images from the Assets Panel
 - 5.2.4 Procedure of Inserting Images
- 5.3 Cropping and Resizing Images
 - 5.3.1 Optimizing and Altering Images
 - 5.3.2 Cropping Graphics
 - 5.3.3 Resampling after Resizing
- 5.4 Adjusting Image Contrast and Brightness
 - 5.4.1 Sharpen an image
- 5.5 Setting Image Properties
 - 5.5.1 Modifying Image Attributes
 - 5.5.2 Naming an Image
 - 5.5.3 Adjusting Height and Width
 - 5.5.4 Using Margins
 - 5.5.5 Adding Image Descriptions
 - 5.5.6 Bordering a Graphic
 - 5.5.7 Specifying a Lowsrc
 - 5.5.8 Working with Alignment Options
 - 5.5.9 Wrapping Text
- 5.6 Adjusting the Size of an Image
 - 5.6.1 Employing the Optimize Image Command

- 5.7 Summary
- 5.8 Key Terms
- 5.9 Questions and Exercises
- 5.10 Further Reading

UNIT 6 : WORKING WITH HTML TABLES

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Inserting Tables
 - 6.2.1 Inserting Rows
 - 6.2.2 Inserting Cells
 - 6.2.3 Inserting Column and Row Headings
 - 6.2.4 Adding a Table to the Page using the Dreamweaver Technique
- 6.3 Selecting Table Elements
 - 6.3.1 Selecting in Expanded Tables Mode
 - 6.3.2 Selecting an Entire Table
 - 6.3.3 Selecting a Row or Column
 - 6.3.4 Selecting Cells
- 6.4 Formatting Tables and Cells
 - 6.4.1 Editing a Table's Contents
 - 6.4.2 Moving through a Table
 - 6.4.3 Cutting, Copying and Pasting in Tables
 - 6.4.4 Copying Attributes and Contents
 - 6.4.5 Inserting Table Content using the Dreamweaver Technique
 - 6.4.6 Working with Table Properties
 - 6.4.7 Centering a Table in Cascading Style Sheets (CSS)
 - 6.4.8 Inserting Rows and Columns
 - 6.4.9 Setting Table Borders and Backgrounds
 - 6.4.10 Working with Cell Spacing and Cell Padding
 - 6.4.11 Adjusting Table Properties using the Dreamweaver Technique
 - 6.4.12 Setting Cell, Column and Row Properties
- 6.5 Sorting and Importing Tabular Data
 - 6.5.1 Sorting Tables
 - 6.5.2 Importing Tabular Data
- 6.6 Setting Table Colors
- 6.7 Summary
- 6.8 Key Terms
- 6.9 Questions and Exercises
- 6.10 Further Reading

UNIT 7 : USING FRAMES

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Creating Frames and Framesets
 - 7.2.1 Creating a New Frameset File
 - 7.2.2 Creating a Frameset Visually
 - 7.2.3 Creating Framesets Quickly with Frame Objects
- 7.3 Selecting Frames and Framesets
- 7.4 Saving and Closing Frames and Framesets
- 7.5 Setting up Frames
 - 7.5.1 Frameset Property Inspector

- 7.5.2 Resizing Frames in a Frameset
- 7.5.3 Manipulating Frameset Borders
- 7.5.4 Enabling Borders
- 7.5.5 Border Color Options
- 7.6 Frame Content
 - 7.6.1 Targeting Frame Content
 - 7.6.2 Targeting Sections of a Frameset
 - 7.6.3 Targeting Specific Frames in a Frameset
 - 7.6.4 Updating Two or More Frames at Once
- 7.7 Step-By-Step Exercise: Creating and Configuring Frames
 - 7.7.1 Create the Frameset
 - 7.7.2 Set Frame Properties
 - 7.7.3 Insert Web Pages into the Frames
 - 7.7.4 Save the Frames
 - 7.7.5 Target Links
- 7.8 Dreamweaver Technique: Establishing a Frameset
- 7.9 Dreamweaver Technique: Setting Frame Targets
- 7.10 Summary
- 7.11 Key Terms
- 7.12 Questions and Exercises
- 7.13 Further Reading

UNIT 8 : INTERACTIVE FORMS

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Structure of an Interactive Form
 - 8.2.1 Working of HTML Forms
 - 8.2.2 Attributes of the < form> Tag
 - 8.2.3 HTML Form Controls
- 8.3 Creating Interactive Forms
 - 8.3.1 Inserting a Form in Dreamweaver
 - 8.3.2 Declaring the Encoding Type (Enctype)
 - 8.3.3 Activating a Form with Buttons
- 8.4 Validating Interactive Forms
 - 8.4.1 Validating Form Data
 - 8.4.2 Validating Numeric Data
 - 8.4.3 Validating E-mail Addresses
- 8.5 Steps for Inserting Elements in an Interactive Form
- 8.6 Summary
- 8.7 Key Terms
- 8.8 Questions and Exercises
- 8.9 Further Reading

UNIT 9 : BEHAVIOURS

- 9.0 Introduction
- 9.1 Unit Objective
- 9.2 Inserting a Behavior
 - 9.2.1 Installing, Managing and Modifying Behaviors
 - 9.2.2 Altering the Parameters of a Behavior
 - 9.2.3 Using the Behaviors Panel
- 9.3 Show and Hide Layer Behavior

- 9.3.1 Appear /Fade
- 9.3.2 Blind
- 9.3.3 Grow/ Shrink
- 9.3.4 Highlight
- 9.3.5 Shake
- 9.3.6 Slide
- 9.3.7 Squish
- 9.4 Using JavaScript Code
 - 9.4.1 Call JavaScript
 - 9.4.2 Change Property
 - 9.4.3 Check Plugin
 - 9.4.4 Drag AP Element
 - 9.4.5 Go to URL Action
 - 9.4.6 Jump Menu and Jump Menu Go
 - 9.4.7 Open Browser Window
 - 9.4.8 Popup Message
- 9.5 Step By Step: Inserting Behaviors
 - 9.5.1 Dreamweaver Technique—Modifying Behavior
 - 9.5.2 Dreamweaver Technique—Incorporating Behaviors
 - 9.5.3 Triggering Custom Functions
- 9.6 Summary
- 9.7 Key Terms
- 9.8 Questions and Exercises
- 9.9 Further Reading

UNIT 10 : HTML AND DREAMWEAVER

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 Tags
 - 10.2.1 How does HTML Work?
- 10.3 Code Inspector
 - 10.3.1 Working with C View and Code Inspector
 - 10.3.2 Enabling Code View Options WA
- 10.4 The Tag Hint List
 - 10.4.1 Working with the Quick Tag Editor
 - 10.4.2 Working with the Hint List
 - 10.4.3 Using the Insert HTML Mode
 - 10.4.4 Using the Wrap Tag Mode
 - 10.4.5 Using the Edit Tag Mode
- 10.5 Find and Replace
 - 10.5.1 Finding on the Visual Page
 - 10.5.2 Storing and Retrieving Queries
 - 10.5.3 Searching the code
 - 10.5.4 Looking for Text in the Code
 - 10.5.5 Using Advanced Text Options in Find and Replace
 - 10.5.6 Replacing HTML Tags and Attributes
 - 10.5.7 Concentrating Search with Regular Expressions
 - 10.5.8 Wildcard Characters
 - 10.5.9 Matching Character Positions and Repeating Characters
 - 10.5.10 Matching Character Ranges
 - 10.5.11 Using Grouping with Regular Expressions
- 10.6 Summary

10.7 Key Terms

10.8 Questions and Exercises

10.9 Further Reading

Course: BMG 206: Developing Dynamic Pages Using JavaScript & VB Script

UNIT 1 : JAVASCRIPT SYNTAX

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Origin of syntax and Script
- 1.3 Variables
- 1.4 Types of Basic Data
- 1.5 Operators and Functions
- 1.6 Control Structures
- 1.7 Objects and Exceptions
 - 1.7.1 What are Objects?
 - 1.7.2 The JavaScript Object Model
 - 1.7.3 Using Properties
 - 1.7.4 Using Methods
 - 1.7.5 Creating Instances of Objects
- 1.8 Miscellaneous
- 1.9 Summary
- 1.10 Key Terms
- 1.11 Questions and Exercises
- 1.12 Further Reading

UNIT 2 : JAVASCRIPT AND HTML

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 JavaScript and HTML
- 1.3 Basics
- 1.4 Dialogs
- 1.5 Variables
- 1.6 Arrays
- 1.7 Operators
- 1.8 Summary
- 1.9 Key Terms
- 1.10 Questions and Exercises
- 1.11 Further Reading

UNIT 3 : CONTROL FLOW

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 JavaScript Programming Statements
- 1.3 If Condition
- 1.4 Switch Case
- 1.5 Loop Statements
 - 1.5.1 While Loop
 - 1.5.2 For Loop
- 1.6 Function
- 1.7 Object-oriented JavaScript Programming

- 1.8 Summary
- 1.9 Key Terms
- 1.10 Questions and Exercises
- 1.11 Further Reading

UNIT 4 : JAVA SCRIPT METHODS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Getting Information: window properties and methods
- 1.3 String Manipulation
- 1.4 Summary
- 1.5 Key Terms
- 1.6 Question and Exercises
- 1.7 Further Reading`

UNIT 5 : FORMS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Form Handling
- 1.3 Form Elements: Button, Text Area, Check Box, radio, and Select
 - 1.3.1 Accessing Form Elements
 - 1.3.2 Other Input Elements
- 1.4 Form Validation
 - 1.4.1 Responding to User Actions
 - 1.4.2 Client-Side Form Processing
 - 1.4.3 Working with CGI Scripts
 - 1.4.4 Performing Local Form Processing
- 1.5 Summary
- 1.6 Key Terms
- 1.7 Questions and Exercises
- 1.8 Further Reading

UNIT 6 : INTRODUCTION TO VB SCRIPT

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 VB Script and its Application
 - 6.2.1 Using VB Script with Internet Explorer
 - 6.2.2 Using VB Script with Internet Information Services
 - 6.2.3 Using VB Script with Windows Script Host
- 6.3 Using Visual Basic with Microsoft Access
- 6.4 Summary
- 6.5 Key Terms
- 6.6 Questions and Exercises
- 6.7 Further Reading

UNIT 7 : VARIANT DATA TYPE, SUB TYPES, AND LITERALS

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Variant: Data Type and Sub types
- 7.3 Data and Time Literals

- 7.5 Summary
- 7.7 Key Terms
- 7.8 Questions and Exercises
- 7.8 Further Reading

UNIT 8 : ARITHMETIC OPERATIONS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Introduction to Arithmetic Operators
 - 1.2.1 Arithmetic Addition (+)
 - 1.2.2 Arithmetic Subtraction (-)
 - 1.2.3 Arithmetic Multiplication (*)
 - 1.2.4 Arithmetic Division (/)
 - 1.2.5 Arithmetic Integer Division (\)
 - 1.2.6 Arithmetic Modulus (Mod)
 - 1.2.7 Arithmetic Exponentiation (^)
- 1.3 Introduction to Numeric Comparison Operators
- 1.4 Introduction to Logical (Boolean) Operators
- 1.5 Miscellaneous Operators
- 1.6 Order of Precedence
- 1.7 Operator Overloading
- 1.8 Summary
- 1.9 Key Terms
- 1.10 Questions and Exercises
- 1.11 Further Reading

UNIT 9 : VARIABLE DECLARATION AND ASSIGNMENT STATEMENT

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Variable Declaration
- 9.3 Assigning Values to Variable
- 9.4 Default Value of a Variable
- 9.5 Introduction to Regular Operands
- 9.6 Dim Statement and Regular Operands
- 9.7 Summary
- 9.8 Key Terms
- 9.9 Questions and Exercises
- 9.10 Further Reading

UNIT 10 : ARRAY DATA TYPE AND RELATED STATEMENTS

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 Array “Dim x()”
- 10.3 Array Bound and Declaring Array Variables
- 10.4 Accessing Arrays Elements with Indexes
- 10.5 Fixed Size Array
- 10.6 Dynamic Array
- 10.7 “For Each” Statement Example
- 10.8 Erase Statement: Removing all elements in an Array
- 10.9 Data Type “variant()”: Array of variant values

- 10.10 Summary
- 10.11 Key Terms
- 10.13 Further Reading

UNIT 11 : CONDITIONAL AND LOOP STATEMENTS

- 11.0 Introduction
- 11.1 Unit Objectives
- 11.2 Conditional Statement
 - 11.2.1 The “if” Statement and its Examples
 - 11.2.2 The “Select Case” Statement and its Examples
- 11.3 Loop Statements
 - 11.3.1 For...Next Statements
 - 11.3.2 For Each... Next Statement
 - 11.3.3 Do While Statement
 - 11.3.4 Choosing Between Unit and While
 - 11.3.5 Breaking Out of a Do Loop
 - 11.3.6 While... Wend statement
- 11.4 Summary
- 11.5 Key Terms
- 11.6 Questions and Exercises
- 11.7 Further Reading

UNIT 12 : FUNCTION AND SUB PROCEDURES

- 12.0 Introduction
- 12.1 Unit Objectives
- 12.2 Function Statement and Function Call
- 12.3 Procedure
- 12.4 Sub Statement and Subroutine Call
- 12.5 Function Syntax
- 12.6 Passing Arguments to Procedures and Functions
- 12.7 Example of a Sub Procedure: Exiting a Procedure of Function
- 12.8 Passing Arrays as Arguments
- 12.9 Variable Scope, Declaration and Lifetime
- 12.10 Summary
- 12.11 Key Terms
- 12.12 Questions and Exercises
- 12.13 Further Reading

Course: BMG 207: Video Production Basics

UNIT 1 HANDLING VIDEO CAMERA

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Video Camera Terminology
- 1.3 Planning
- 1.4 Camera Functions
- 1.5 Framing
- 1.6 Camera Moves
- 1.7 Video Camera Filters And Types Of Shots
- 1.8 Shooting Technique
- 1.9 Summary
- 1.10 Key Terms
- 1.11 End Questions

UNIT 2 VIDEO CAMERA FUNCTIONS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Video Camera Focus
- 2.3 Video Camera Iris
- 2.4 Video Camera White Balance
- 2.5 Video Camera Viewfinder
- 2.6 Video Camera Shutter
- 2.7 Summary
- 2.8 Key Terms
- 2.9 End Questions

UNIT 3 : VIDEO CAMERA TRIPODS

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Tripods
- 3.3 Choosing A Tripod
- 3.4 Setting Up A Camera Tripod
- 3.5 How To Use A Tripod
- 3.6 Monopods
- 3.7 Summary
- 3.8 Key Terms
- 3.9 End Questions

UNIT 4 : CCU (CAMERA CONTROL UNIT) OPERATIONS

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Ccu (Camera Control Unit)
- 4.3 Vision Mixer
- 4.4 Making A Video Master Tape
- 4.5 How To Prepare A Tape For Editing

- 4.6 Slow Motion Replays
- 4.7 Shooting A Fireworks Video
- 4.8 Summary
- 4.9 Key Terms
- 4.10 End Questions

UNIT 5 : VIDEO CHROMA—GREEN SCREEN

- 5.0 Introduction
- 5.1 unit objectives
- 5.2 how to make a green screen
- 5.3 planning the studio setting
- 5.4 green screen material
- 5.5 lighting the green screen
- 5.6 using green screen footage
- 5.7 duplicating a person in the same frame
 - 5.7.1 duplicating actors with a split-screen:
 - 5.7.2 duplicating actors by keying
- 5.8 star trek transporter effect
- 5.9 How to blur part of an image.
- 5.10 How to create the star wars lightsaber effect"
- 5.11 summary
- 5.12 key terms
- 5.13 end questions

UNIT 6 : SHOOTING EVENTS

- 6.0 introduction
- 6.1 unit objectives
- 6.2 shooting interviews
- 6.3 interview shots
- 6.4 studio interview settings
- 6.5 mobile interviewing techniques
- 6.6 remote interviews
- 6.7 vox pops
- 6.8 recording sound for interviews
- 6.9 lighting for interviews
- 6.10 editing interviews
- 6.11 general tips for shooting interviews
- 6.12 shooting a wedding video
- 6.13 shooting a home video
- 6.14 summary
- 6.15 key terms
- 6.16 end questions

UNIT 7 : STREAMING VIDEO

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Creating Streaming Video
- 7.3 Streaming Video Servers
- 7.4 Streaming Formats
- 7.5 Summary

- 7.6 Key Terms
- 7.7 End Questions

UNIT 8 : INTRODUCTION TO VIDEO EDITING

- 8.0 introduction
- 8.1 unit objectives
- 8.2 video editing
- 8.3 editing methods
- 8.4 video editing terminology
- 8.5 linear editing (tape to tape)
- 8.6 assemble editing
- 8.7 insert editing
- 8.8 non-linear (digital) editing
- 8.9 editing software
- 8.10 video transitions
- 8.11 summary
- 8.12 key terms
- 8.13 end questions

UNIT 9 : EMBEDDING STREAMING VIDEO IN A WEB PAGE

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Code For Embedding A Video File
- 9.3 Streaming Video Files With Quicktime
- 9.4 Streaming Mpeg-4
- 9.5 Streaming Video Using Flash
- 9.6 Streaming Video Using Flash Media Server
- 9.7 Flash Video: Progressive Download
- 9.8 Streaming Video Using Windows Media
- 9.9 Summary
- 9.10 Key Terms
- 9.11 End Questions

UNIT 10 : VIDEO FORMATS

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 8mm Video Format
- 10.3 Beta / Betamax Format
- 10.4 Dv Format
- 10.5 Hdtv
- 10.6 Flash Video Format
- 10.7 Mpeg Format
- 10.8 Quicktime
- 10.9 Vhs Format
- 10.11 Summary
- 10.12 Key Terms
- 10.13 End Questions

Course: BMG 208 : Story Boarding

UNIT 1 : INTRODUCTION TO HTML

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 What Is Storyboard
- 1.3 Origin of A Story Board
- 1.4 Benefits of Storyboards
- 1.5 Steps To Create A Storyboard
- 1.6 Summary
- 1.7 Key Terms
- 1.8 End Questions

UNIT 2 : CREATING2.0 INTRODUCTION

- 2.1 Unit Objectives
- 2.2 Creating and Using Storyboard
- 2.3 Storyboard For CBT
- 2.4 Making Of A Good Storyboard
- 2.5 Creating Storyboard
- 2.6 Summary
- 2.7 Key Terms
- 2.8 Question and Exercise and Using Storyboard For CBT

UNIT 3 : STORYBOARDING FOR MULTIMEDIA

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Storyboards for Multimedia
- 3.3 Advantages of Storyboarding
- 3.4 Using interactive Storyboarding to Speed up the content-Writing Phase
- 3.5 Using interactive Storyboarding to Speed up Report Document Production
- 3.6 From interactive Storyboard to Prototype: A Practical Example
- 3.7 Multimedia Storytelling
- 3.8 Summary
- 3.9 Key Terms
- 3.10 Question and Exercises

UNIT 4 : INTERACTIVE STORYBOARDING

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Interactive Test-of-Concept Model
- 4.3 Key Elements of a Storyboard
 - 4.3.1 Interactive Storyboard Rationale
 - 4.3.2 Learning Outcomes
 - 4.3.3 Prior Knowledge
 - 4.3.4 Screen Layout
 - 4.3.4 Additional Resources
- 4.4 Useful User-Interface Techniques

- 4.4.1 Text
- 4.4.2 Graphics
- 4.4.3 Video
- 4.4.4 Pen and paper
- 4.5 Adding User Interactivity
 - 4.5.1 Experiments
 - 4.5.2 Graph Plotting
 - 4.5.3 Drag and Drop
 - 4.5.4 Equations and Derivations
 - 4.5.5 Self-Assessment Exercises
 - 4.5.6 Common User- Interface Controls
- 4.6 Summary
- 4.7 Key Terms
- 4.8 Questions and Exercises

UNIT 5 : STORYBOARDING DESIGN PROCESS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Reasons for Using Stories and Storyboards
- 5.3 Steps for Creating Effective Storyboards
 - 5.3.1 Determine Goals and Target Audience
 - 5.3.2 Determine the Starting Point
 - 5.3.3 Select a General Setting
 - 5.3.4 Determine Characters
 - 5.3.5 Decide on an Overall Activity and Goal
 - 5.3.6 Create Events
 - 5.3.7 Merge Events into a Script
 - 5.3.8 Review with Domain Experts
 - 5.3.9 Determine a Style and Medium
 - 5.3.10 Prepare a Rough Storyboard or the Script
 - 5.3.11 Create Screens
- 5.4 Summary
- 5.5 Key Terms
- 5.6 Questions and Exercises

UNIT 6 : STORYBOARD FOR WEBSITE DESIGN

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Purpose of a Website Storyboard
- 6.3 Types of Storyboards
 - 6.3.1 Presentation Storyboard
 - 6.3.2 Production Storyboard
 - 6.3.3 Maintenance Storyboard
- 6.4 Elements/Contents of a Website Storyboard
- 6.5 Storyboard Checklist
- 6.6 Summary
- 6.7 Key Terms
- 6.8 Questions and Exercises

UNIT 7 : STORYBOARD PRESENTATION

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Storyboarding
- 7.3 Techniques of Creating A Storyboard
 - 7.3.1 Paper Storyboarding

- 7.3.2 Screen Storyboarding
- 7.4 Sequences of slides
- 7.5 Storyboard Elements
- 7.6 Specialized Requirements
- 7.7 From Storyboard to Finality
- 7.1 Skill Sets Required For Storyboarding
- 7.8 Summary
- 7.9 Key Terms
- 7.10 Question and Exercises

Course: BMG 209 : VISUAL COMMUNICATION

UNIT 1 : BASIC VISUAL ELEMENTS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Basics of Visual Communication
 - 1.2.1 How You See: Visual Relationships
 - 1.2.2 Telling a Story: Visual Hierarchy
 - 1.2.3 Syntactic Theory of Visual Communication
- 1.3 Basic Visual Elements: An Introduction
- 1.4 Dot
- 1.5 Line
- 1.6 Shapes and Space
- 1.7 Direction
- 1.8 Understanding Texture
- 1.9 Color: Hue, Value and Saturation
 - 1.9.1 Hue
 - 1.9.2 Saturation
 - 1.9.3 Value
 - 1.9.4 Form: Light and Dark
 - 1.9.5 Numerical Values assigned to Hue, Saturation and Value
- 1.10 Basic of Scale
- 1.11 Dimension and Motion
- 1.12 Composition and Principles of Design
- 1.13 Summary
- 1.14 Key Terms
- 1.15 Question and Exercises

UNIT 2 : ORAL AND VISUAL CULTURE : A DOMINANT FORM OF COMMUNICATION

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Oral Communication
 - 2.2.1 Oral Communication Models
 - 2.2.2 Noise in Oral Communication
- 2.3 Power of Orality
 - 2.3.1 Theory of the Characteristics of Oral Culture
 - 2.3.2 Difference between Orality and Oratory
- 2.4 Visual Rhetoric
- 2.5 Visual Communication
- 2.6 Visual and Oral Means of Communication
 - 2.6.1 Means of Oral Communication
- 2.7 Summary
- 2.8 Key Terms
- 2.9 Question and Exercises

UNIT 3 : CLASSICAL PHILOSOPHICAL THEORIES OF PERCEPTION

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Overview of Perception
 - 3.2.1 Types of Perception

- 3.2.2 Perception and Reality
- 3.2.3 Cognitive Processing and Epiphenomenalism
- 3.2.4 Evolving Perception
- 3.3 Philosophy of Perception
- 3.4 Visual Perception: Role in Reading
- 3.4.1 Sensation and Perception: A process Approach
- 3.5 Directness and Indirectness
- 3.6 Realism and Idealism
- 3.7 Direct realism
- 3.7.1 Direct Realist Responses to Criticism
- 3.8 Indirect Realism
- 3.9 Summary
- 3.10 Key Terms
- 3.11 Question and Exercise

UNIT 4 : PHOTOGRAPHIC COMPOSITION

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Introduction to Photography
- 4.2.1 Camera Controls for Good Photography
- 4.2.2 Processing an Image
- 4.3 Photographic Composition
- 4.3.1 Subject
- 4.3.2 Simplicity
- 4.3.3 Leading Lines
- 4.3.4 Frame
- 4.3.5 Point of View
- 4.3.6 Camera Angles
- 4.3.7 Balance
- 4.4 Composition Rules
- 4.4.1 Two-Dimensional Composition
- 4.4.2 Three-Dimensional Composition
- 4.5 Summary
- 4.6 Key Terms
- 4.7 End Questions

UNIT 5 : TYPES OF PHOTOGRAPHY

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Introduction to Types of Photography
- 5.2.1 Styles of Photography
- 5.3 Aerial Photography
- 5.3.1 Skills and Techniques Required for Aerial Photography
- 5.4 Astrophotography
- 5.5 Black and White Photography
- 5.6 Commercial Photography
- 5.7 Digiscoping
- 5.8 Event Photography
- 5.9 Infrared Photography
- 5.10 Infrared Photography
- 5.11 Large Format Photography
- 5.12 Kirlian Photography
- 5.13 Macro Photography
- 5.14 Nature Photography
- 5.15 Night Photography
- 5.16 Panoramic Photography

- 5.17 Paranormal Photography
- 5.18 Pinhole Photography
- 5.19 Satellite Photography
- 5.20 Sports Photography
- 5.21 Stereoscopic (3-D) Photography
- 5.22 Stock Photography
- 5.23 Travel Photography
- 5.24 Ultraviolet Photography
- 5.25 Underwater Photography
- 5.26 Summary
- 5.27 Key Terms
- 5.28 End Questions

Course: BMG 210: Audio-Editing Sound Forge

UNIT 1: DIGITAL AUDIO

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 What is Sound
 - 1.2.1 Measuring Sound
 - 1.2.2 Frequency
 - 1.2.3 Decibel Exposure Time Guidelines
- 1.3 Analog and Digital Audio
 - 1.3.1 Analog Audio
 - 1.3.2 Digital Audio
 - 1.3.3 File Size and Bandwidth
- 1.4 Compression
 - 1.4.1 Lossless Audio Compression
 - 1.4.2 Lossy Audio Compression
- 1.5 Summary
- 1.6 Key Terms
- 1.7 End Questions

UNIT 2 : DIGITAL AUDIO FORMATS

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Digital Audio Files
 - 2.2.1 Streaming Audio
 - 2.2.2 Posting an Audio on the Internet
- 2.3 Motion Picture Expert Group (MPEG) Audio
 - 2.3.1 MPEG Proprietary Formats
 - 2.3.2 Non-MPEG Proprietary Formats
- 2.4 Summary
- 2.5 Key Terms
- 2.6 End Questions

UNIT 3 : CREATING MP3 FILES

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Creating an MP3 File: Encoding
 - 3.2.1 Bit-Rates
 - 3.2.2 Sound Quality
 - 3.2.3 Constant Bit-Rate Encoding
 - 3.2.4 Variable Bit-Rate Encoding
 - 3.2.5 Selecting the Best Bit-Rate
 - 3.2.6 Verifying the Result
- 3.3 Summary
- 3.4 Key Terms
- 3.5 End Question

UNIT 4 : EDITING SOUND FILES

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Sound Editing Software
 - 4.2.1 Sound Edit
 - 4.2.2 Sound Designer
 - 4.2.3 Wave Convert for Mac and PC
 - 4.2.4 Sound Forge
 - 4.2.5 Other General Audio Editors
 - 4.2.6 Audio/Video Editors
 - 4.2.7 Transition between Songs
- 4.3 Audio and Video Utilities
- 4.4 Normalization
- 4.5 Sound Editing and Normalizing Utilities
 - 4.5.1 Important Some Sound Editing Utilities
 - 4.5.2 Normalizing Utilities
- 4.6 Summary
- 4.7 Key Terms

UNIT 5 : SOUND EDITING WITH AUDACITY

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Introduction to Editing
 - 5.2.1 Cut
 - 5.2.2 Copy
 - 5.2.3 Paste
 - 5.2.4 Silence
 - 5.2.5 Duplicate and Split
 - 5.2.6 AVI Splitter
 - 5.2.7 Submixes
- 4.6 Summary
- 4.7 Key Terms

UNIT 6 : AUDACITY MENU

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 File Menu
- 6.3 Edit Menu
- 6.4 View Menu
- 6.5 Project Menu
- 6.6 Generate Menu
- 6.7 Effect Menu
 - 6.7.1 VST Effects
 - 6.7.2 Internal Effect
 - 6.7.3 LADSPA Effects
 - 6.7.4 Nyquist Effects (Nyquist Prompt...)
- 6.8 Summary
- 6.9 Key Terms
- 6.10 End Questions

UNIT 7 : TOLLBAR AND TRACKS

- 7.0 Introduction

- 7.1 Unit Objectives
- 7.2 Main Toolbar
 - 7.2.1 Buttons for Play Control
- 7.3 Mixer Toolbar/Slider Bar
- 7.4 Edit Toolbar
- 7.5 Audio Tracks
- 7.6 Track Pop-Down Menu
- 7.7. Gain and Panning Controls
- 7.8 Summary
- 7.9 Key Terms
- 7.10 End Question

UNIT 8 : WORKING ON SOUND FORGE

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Sound Forge: Getting Started
 - 8.2.1 Your Workspace
 - 8.2.2 Toolbars
 - 8.2.3 Opening and Saving a File
 - 8.2.4 Data Window (Sound file window)
- 8.3 Editing Sound
 - 8.3.1 Playing a Sound
 - 8.3.2 Basic Editing Operations
- 8.4 Effects and Processing
 - 8.4.1 Effects Menu
 - 8.4.2 Process Menu
- 8.5 Summary
- 8.6 Key Terms
- 8.7 End Questions

Course: BMG 211: Video-Editing Adobe Premiere

UNIT 1 : OVERVIEW OF ADOBE PREMIERE PRO

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Capabilities of Adobe Premiere Pro
- 1.3 LIMITATIONS OF ADOBE PREMIERE PRO
- 1.4 Cost
- 1.5 Adobe Premiere Workspace
- 1.6 Project Pannel
- 1.7 The Monitor Panels
- 1.8 The Timeline Panel and Current Time Indicator
- 1.9 Other Panels
- 1.10 Premiere Pro's Menus
- 1.11 Summary
- 1.12 Key Terms
- 1.13 End Questions

UNIT 2 : ADOBE PREMIERE TOOLS

- 1.2 Introduction
- 1.3 Unit Objectives
- 1.4 The Tools Panel
- 1.5 Selection Tools
- 1.6 Timeline Trackicons and Options
- 1.7 Creating a Rippe Edit
- 1.8 Creating a Rolling Edit
- 1.9 Adobe Premiere Rate Stretch Tool
- 1.10 Adobe Premiere Razor Tools
- 1.11 Creating a Slip Edit
- 1.12 Creating a Slide Edit
- 1.13 Adobe Premiere Hand Tool
- 1.14 Adobe Premiere Zoom Tool
- 1.15 Summary
- 1.16 Key Terms
- 1.17 End Questions
- 1.18 Further Reading

UNIT 3 : ADOBE PREMIERE IMPORT AND EXPORT

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Importing Audio Files (.Ac3) and Video Files (.MPEG) into Adobe Premiere
 - 3.2.1 Importing Audio with or without Video
 - 3.2.2 Linking an Audition Mix with Premiere Pro
- 3.3 Import PSD Files into Adobe Premiere
 - 3.3.1 Creating a Digital Movies Using Adobe Photoshop and Adobe ImageReady
 - 3.3.2 Creating a Digital Movies of Warped Text Using Photoshop and ImageReady

- 3.3.3 Creating the Time Files Projects
- 3.4 Exporting Video From Adobe Premiere Pro
 - 3.4.1 Beginning the Export Settings
 - 3.4.2 Changing Export Settings
 - 3.4.3 Changing Video Settings
 - 3.4.4 Changing Audio Settings
 - 3.4.5 Exporting MPEG Files
 - 3.4.6 Burning a DVD
 - 3.4.7 Encoding Terms
 - 3.4.8 Using the Adobe Media Encoder
 - 3.4.9 Adobe Media Encoder Optional Features
 - 3.4.10 Exporting to Windows Media Format
 - 3.4.11 Using Quick Time Streaming
 - 3.4.12 Exporting to Advanced RealMedia Format
 - 3.4.13 Exporting To Mobile Devices
- 3.5 Summary
- 3.6 Key Terms
- 3.7 Question and Exercises
- 3.8 Further Reading

UNIT 4 : AUDIO

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Synchronizing Sound and Video In Above Premiere
- 4.3 Audio Mixer Tour
- 4.4 Effects and Sends Options
- 4.5 The Pan and Balance Controls
- 4.6 Applying effects Using The Audio Mixer
- 4.7 Applying Fill Left, Fill Right and Swap Channels
- 4.8 Adobe Premiere Denoiser Effect
- 4.9 Adobe Premiere Dynamics Effect
- 4.10 Adobe Premiere Fill Left / Right Effect
- 4.11 Adobe Premiere Swap Channels Effect
- 4.12 Summary
- 4.13 Key Terms
- 4.14 End Questions

UNIT 5 : TITLES IN ADOBE PREMIERE PRO

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Making Totles in Adobe Premiere Pro
- 5.3 Using The Title Designer
- 5.4 Importing Titles and Adding Them To The Timeline
- 5.5 Using Templates
- 5.6 Summary
- 5.7 Key Terms
- 5.8 End Questions

UNIT 6 : TRANSITIONS IN ADOBE PREMIERE

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Transitions and Handles
 - 6.2.1 Navigation Within the Video Transitions Folder
 - 6.2.2 Applying a Transition in Single-Track Editing Mode
 - 6.2.3 Handle
 - 6.2.4 Creation of Transition
 - 6.2.5 Editing Transition
 - 6.2.6 Changing a Transition's Alignment
 - 6.2.7 Changing a Transition's Duration
- 6.3 Adjusting a Transition's Setting and Showing Actual Source Setting
- 6.4 Using Default Settings
 - 6.4.1 Applying a Default Transition
 - 6.4.2 Replacing and Deleting Transitions
 - 6.4.3 Creating Interesting Animated Graphic Background Using Video Transitions
 - 6.4.4 Transition Review
 - 6.4.5 Map Transitions
 - 6.4.6 Center Peel
 - 6.4.7 Page Peel
 - 6.4.8 Page Turn
 - 6.4.9 Peel Back
 - 6.4.10 Roll Away
 - 6.4.11 Slide
 - 6.4.12 Split
 - 6.4.13 Swap
 - 6.4.14 Swirl
- 6.5 Special Effects
- 6.6 Stretch Transitions
- 6.7 Wipe Transitions
- 6.8 Summary
- 6.9 Key Terms
- 6.10 Questions and Exercises
- 6.11 Furthering Reading

UNIT 7 : KEY FRAMES AND EFFECTS

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Effects Control Window
 - 7.2.1 Touring the Motion Effects Options in the Effect Controls Window
- 7.3 Motion Effects-Slow and Fast
- 7.4 he Timeline
- 7.5 Key Frames
- 7.6 Adjusting Speed And Duration
- 7.7 Opacity in Adobe Premier
- 7.8 Adjusting Speed And Duration
- 7.9 Applying Special Effects
 - 7.9.1 Using a clip with an alpha channel
 - 7.9.2 Creating Travelling Mattes
 - 7.9.3 Creating Motion Setting Projects
- 7.10 Fine -tuning Edits using Trim Monitor

- 7.11 Summary
- 7.12 Key Terms
- 7.13 Question and Exercises
- 7.14 Further Reading

UNIT 8 : SPECIAL EFFECT -STAR TREK TRANSPORTER EFFECT

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Special Effects
 - 8.2.1 Plug-ins
 - 8.2.2 Filters and Effects in Image Editor
 - 8.2.3 Transforming an Image
 - 8.2.4 Making a Black-and-White Picture with Just a Splash of Colour
 - 8.2.5 Making Science-Fiction Shots
 - 8.2.6 'Ageing' a Digital Image
 - 8.2.7 Colourizing An Image
 - 8.2.8 Warping and deforming People's Faces to Make Caricatures
- 8.3 Star Trek Transporter Effect
- 8.4 Summary
- 8.5 Key Terms
- 8.6 Questions and Exercises
- 8.7 Further Reading

Course :BMG 212: ADVANCE VIDEO EFFECTS

UNIT 1 : FINAL CUT PRO INTERFACE

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Overview Of The Fcp Interface
 - 1.2.1 Working Of Interface
 - 1.2.2 Working With Tabs And Tabbed Windows
 - 1.2.3 Using Different Window Layouts
- 1.3 Understanding A Project And Project Settings
 - 1.3.1 Industry Pipeline Or Workflow
 - 1.3.2 Post-Production Pipeline
 - 1.3.3 Understanding Projects, Clips And Sequences
 - 1.3.4 Creating And Saving Projects
- 1.4 Importing And Working With Clips In The Browser Window
- 1.5 Viewer Controls In Final Cut Pro
- 1.6 Timeline And Canvas Windows
- 1.7 Summary
- 1.8 Key Terms
- 1.9 End Questions

UNIT 2 : ORGANISING MEDIA

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Unit Of Markers
- 2.3 Understanding Clip And Sequence Markers
- 2.4 Using Bins To Manage Your Clips
- 2.5 Using Labels
- 2.7 Summary
- 2.8 Key Terms
- 2.9 End Questions

UNIT 3 : TIMELINE

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 An Introduction To The Layer System
- 3.3 Working With The Timeline
- 3.4 Displaying In The Timeline
- 3.5 Navigating The Timeline
- 3.6 Understanding A Storyboard
- 3.7 Summary
- 3.8 Key Terms
- 3.9 End Questions

UNIT 4 : CAPTURING AUDIO AND VIDEO

- 4.0 Introduction
- 4.1 Unit Objectives

- 4.2 Supported Input Types
- 4.3 Storage Requirements For Digital Video (Dv)
- 4.4 Log And Capture Window
- 4.5 Using Itunes To Convert Audio Sample Rate
- 4.6 Summary 3
- 4.7 Key Terms
- 4.8 End Questions

UNIT 5 : THREE-POINT EDITING

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 The Three-Point Editing Process
- 5.3 Summary
- 5.4 Key Terms
- 5.5 End Questions

UNIT 6 : WORKING WITH AUDIO

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Sound
- 6.3 Audio Meters
- 6.4 Audio Mixers
- 6.5 Adjusting The Audio Levels In The Viewer
- 6.6 Moving Clips Back Into Sync
- 6.7 Summary
- 6.8 Key Terms
- 6.9 End Questions

UNIT 7 : TRANSITIONS

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Types Of Transitions
- 7.3 Transition Editor
- 7.4 Summary

Course: BMG 301: ANIMATION PRINCIPLES

UNIT 1: AN ANIMATOR'S JOB

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Zeal and Fervor for Animation
- 1.3 Animation studio:
 - 1.3.1 Setting up one's own studio,
 - 1.3.2 Projecting one's talent commercially
- 1.4 What an Animator does
 - 1.4.1 Job description
 - 1.4.2 Organization sizes. Small and big contractors and studios
 - 1.4.2.1 A small contractor
 - 1.4.2.2 A mid-sized contractor
 - 1.4.2.3 A full-fledged studio of national if not international standing.
- 1.5 Workflows at an Animation Studio
 - 1.5.1 Making a pitch for the work
 - 1.5.1.1 The rough work
 - 1.5.1.2 Planning the Poses
 - 1.5.1.3 Expressive pose
 - 1.5.2 Forming a contract
 - 1.5.3 Creating a storyboard for the work at hand
 - 1.5.4 Forming the objects, scenes and characters
 - 1.5.5 Conceive the relevant motions
 - 1.5.6 Testing
 - 1.5.7 Rendering
 - 1.5.8 Raising your invoice for the work done
- 1.6 Coaching and education in Animation
- 1.7 Employment Avenues in Animation
- 1.8 Summary of This Section
- 1.9 Important Terms
- 1.10 End Questions
- 1.11 Further reading

UNIT 2 : ACTIVITIES UNDER ANIMATION

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Computer Animation
 - 2.2.1 Computer Animation as Animation
- 2.3 Conceptualization
 - 2.3.1 Flow Chart
- 2.4 Storyboarding
 - 2.4.1 Request for Proposals
 - 2.4.2 Production-stage Storyboard
 - 2.4.3 Basic Descriptions of a Storyboard
 - 2.4.4 Storyboard Procedure
 - 2.4.5 Costs and Scalability
- 2.5 Client Presentation
 - 2.5.1 Timing the Board

- 2.6 Rendering
 - 2.6.1 Process of writing the script and getting approvals
 - 2.6.2 Milestones
- 2.7 Setting a design for the scene
 - 2.7.1 For an Exterior Scene
 - 2.7.2 For An interior Hall
 - 2.7.3 Acquiring relevant art material from the Client
 - 2.7.4 Fleshing out the character's persona
- 2.8 Putting In Place Music, Sound Effects And Voice Artists
 - 2.8.1 Choreographing movements
 - 2.8.2 Keyframes
 - 2.8.3 Motion Capture
- 2.9 Developing A Render Farm
- 2.10 Lip-synching of Characters
 - 2.10.1 Voice Characterization
 - 2.10.2 Track Reading
 - 2.10.3 Animator as an Actor
- 2.11 Test Pass Rendering
- 2.12 Internet Distribution
- 2.13 Summary
- 2.14 Key Terms
- 2.15 End Questions
- 2.16 Further Reading

UNIT 3 : EQUIPMENT NECESSARY IN ANIMATION

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Equipment Obsolescence
- 3.3 Cost, Roi and Burn Rate
- 3.4 Basic Animation Computer
 - 3.4.1 Choosing a Computer
- 3.5 Choosing Hardware
 - 3.5.1 Hardware
- 3.6 Audio Creation
 - 3.6.1 Stock Music
 - 3.6.2 Recording Booth
 - 3.6.3 Microphone
 - 3.6.4 Headphones and Looping Tools
 - 3.6.5 Live Looping
- 3.7 Role of Video In Animation Studio
 - 3.7.1 NTSC Standard
 - 3.7.2 Black and White Signal
 - 3.7.3 Color Monitors and Gamma Correction
 - 3.7.4 Incorporating Color into the B and W Signal
 - 3.7.5 Video Tape Formats
 - 3.7.6 Digital Video Formats
 - 3.7.7 Components of Video Facility
 - 3.7.8 Animation Recording System
 - 3.7.9 Film Technology
- 3.8 Summery
- 3.9 Key Terms
- 3.10 End Questions

3.11 References

UNIT 4 : MAYA AND 3 DS MAX

4.0 Introduction

4.1 Unit Objectives

4.2 Common Elements

4.3 The 3ds Max

4.3.1 General Description of 3DS Max

4.3.2 Program Navigation in 3DS Max

4.3.3 View Navigation in 3DS Max

4.3 Autodesk Maya

4.3.4 Object Navigation in 3DS Max

4.3.5 Object Creation and Object Editing in 3DS Max

4.3.6 Layers in 3DS Max

4.3.7 3DS Max Track Bar

4.4 Summary of this section

4.4.1 General Description of Maya

4.4.2 Program Navigation and Layout

4.4.3 Shelf

4.4.4 View Navigation in Maya

4.4.5 Object Navigation in Maya

4.4.6 Object Creation and Object Editing in Maya

4.4.7 Layers in Maya

4.4.8 Time Slider and Range Slider in Maya

4.4.8.1 Creating a New Scene

4.4.8.2 Primitive objects

4.4.8.4 Toolbox: Layout shortcuts

4.4.8.5 Toolbox : Transformation Tools

4.4.8.6 Channel box

4.4.8.7 Duplicating Objects

4.4.8.8 Creating A Project

4.4.8.9 Save your work

4.5 Summary

4.6 Key terms

4.7 End Questions

4.8 Further Reading

Course: BMG 302 INTRODUCTIONS TO MAYA

UNIT 1 : USER INTERFACE

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Autodesk Maya Interface
 - 1.2.1 The Title Bar
 - 1.2.2 The Main Menu Bar
 - 1.2.3 The Status Line
 - 1.2.4 The Shelf / Shelves
 - 1.2.5 The Toolbox
 - 1.2.6 The Channel Box/Layer Editor
 - 1.2.7 The Attribute Editor
 - 1.2.8 The Tool Setting
 - 1.2.9 Time Slider/Range Slider
 - 1.2.10 Command Line and Script Editor Button
 - 1.2.11 Helpline
 - 1.2.12 The Workspace
- 1.3 All about Menus and Shortcuts
 - 1.3.1 Main Menu and Menu Sets
- 1.4 Camera and Camera Settings
 - 1.4.1 Navigating the Scene
 - 1.4.2 Navigating with Default Cameras and View Cube
 - 1.4.3 Adding a Camera
 - 1.4.4 Camera Settings
 - 1.4.5 Camera Attributes
- 1.5 Focus and Shade in View Editor
- 1.6 Transforming Objects
- 1.7 Creating and Placing a Geometry
- 1.8 Setting up a Project in Maya
- 1.9 Creating the Solar System
 - 1.9.1 Creating Hierarchy
 - 1.9.2 Animating Objects
 - 1.9.3 Shading an Object
 - 1.9.4 Adding Light
 - 1.9.5 Rendering Animation
- 1.10 Summary
- 1.11 Key Terms
- 1.12 End Question
- 1.13 Further Reading

UNIT 2 : POLYGON MODELING

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Polygon Anatomy
 - 2.2.1 Selecting and Editing Polygon Components
 - 2.2.2 Polygon Terminology
 - 2.2.3 Polygon Modeling
 - 2.2.4 Polygon Normal

- 2.2.5 Two-Manifold vs Non Manifold Geometry
- 2.3 Helpful Interface Elements for Polygon Modeling
 - 2.3.1 Heads-up Display
 - 2.3.2 Custom Polygon Display
- 2.4 Setting up an Image Plane
- 2.5 Tutorial for Building a Polygon Model
 - 2.5.1 Modeling an LCD Computer Monitor
 - 2.5.2 Modeling a Human Ear
- 2.6 Advantage and Disadvantages of Polygon Modeling
- 2.7 Summary
- 2.8 Key Terms
- 2.9 End Questions
- 2.10 Further Reading

UNIT 3 : ORGANIC MODELING

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Preparing for the Modeling Process
 - 3.2.1 Creating a Custom Shelf for a Polygon Model
 - 3.2.2 Assigning Hotkeys
 - 3.2.3 Using Polygonal Marking Menu
- 3.3 Tutorial of Modeling a Humanoid Head or Equivalent Structure
 - 3.3.1 Setting up image planes
 - 3.3.2 Planning Topology
 - 3.3.3 Model Structure (Blocking the Head)
 - 3.3.4 Detailing the Head
 - 3.3.5 Finalizing the Geometry
- 3.4 Hierarchical Subdivision Surfaces
- 3.5 Subdividing at Render Time
- 3.6 Converting Model to a Subdivision Proxy
- 3.7 Sculpt and Finalize with the Geometry Tool
- 3.8 Summary
- 3.9 Key Terms
- 3.10 End Questions
- 3.11 Further Reading

UNIT 4 : BASIC NURBS MODELING

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Understanding NURBS
 - 4.2.1 Overview of NURBS Modeling
 - 4.2.2 Degree of Curves and Surfaces
 - 4.2.3 Parameterization of Curve and Surface
 - 4.2.4 Surface Direction
 - 4.2.5 Curve Direction
 - 4.2.6 Level of Continuity
 - 4.2.7 Components of NURBS Curves and Surface
 - 4.2.8 Advantages and Disadvantages of NURBS Modeling
 - 4.2.9 Creating Curves using Curve Tools
 - 4.2.10 Attaching and Detaching Curves
 - 4.2.11 Cutting and Filleting Curves

- 4.3 NURBS Surfaces
 - 4.3.1 Revolving/ Extruding/ Lofting/Birailing Surfaces
 - 4.3.2 Tutorial for Modeling with NURBS
- 4.4 Summary
- 4.5 Key Terms
- 4.6 End Questions
- 4.7 Further Reading

UNIT 5 : ADVANCED NURBS MODELING

- 5.0 Introduction
- 5.1 Unit Objective
- 5.2 Tutorial for Modeling with Trimmed Surface
- 5.3 Tutorial for Modeling NURB Patches
 - 5.3.1 Modeling a Dragon's Head
 - 5.3.2 Modeling a Human Head
- 5.4 Summary
- 5.5 Key Terms
- 5.6 End Questions
- 5.7 Further Reading

UNIT 6 : PREPARING MODELS FOR ANIMATION

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Converting Geometry
 - 6.2.1 Generating Poly Surfaces from NURBS Curves
 - 6.2.2 Converting NURBS Surfaces to Poly Surfaces
- 6.3 Hierarchical Subdivision Surfaces
- 6.4 Tutorial for Modeling a Hand with Subdivision Surfaces
- 6.5 Summary
- 6.6 Key Terms
- 6.7 End Questions
- 6.8 Further Reading

UNIT 7 : DEFORMERS

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Non-linear Deformers
 - 7.2.1 Applying and Using Non-Liners Deformers
 - 7.2.2 Bend
 - 7.2.3 Flare
 - 7.2.4 Sine
 - 7.2.5 Squash
 - 7.2.6 Twist
 - 7.2.7 Wave
 - 7.2.8 Nodes, History and the Deformation Order
- 7.3 Specialized Deformers
 - 7.3.1 Lattice Deformers
 - 7.3.2 Cluster Deformer
 - 7.3.3 Wire Deformer
 - 7.3.4 Soft Modification Tool
 - 7.3.5 Blend Shape Deforme

- 7.3.6 Wrap Deformer
- 7.4 Summary
- 7.5 Key Terms
- 7.6 End Questions
- 7.7 Further Reading

UNIT 8 : JOINTS AND SKELETONS

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Creating Skeletons
 - 8.2.1 Skeleton Components
 - 8.2.2 Skeleton Hierarchy
 - 8.2.3 Building Skeletons
- 8.3 Joints
 - 8.3.1 Joint Tool Options
 - 8.3.2 Model Structure (Setting up Joints for Posing and Animation)
 - 8.3.3 Selecting, Creating, Mirroring and Connecting Joints
 - 8.3.4 World Objects and Local Transformation
- 8.4 Tutorial for Creating Biped Skeleton
 - 8.4.1 Selecting and Inserting joints
 - 8.4.2 Orienting Joint
- 8.5 Summary
- 8.6 Key Terms
- 8.7 End Questions
- 8.8 Further Reading

Course: BMG 303 CHARACTER SETUP AND ANIMATION IN MAYA

UNIT 1 : SKINNING AND ADVANCED DEFORMERS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Introduction to Skinning
 - 1.2.1 Methods of Skinning
 - 1.2.2 Changing a skinned Object's deformation order
 - 1.2.3 Point tweaking skinned objects
 - 1.2.4 Editing node behaviour to improve performance
 - 1.2.5 Workflow summary
- 1.3 Rigid skinning
 - 1.3.1 Understanding Rigid Skinning
 - 1.3.2 Rigid Bind Process
 - 1.3.3 Editing Rigid Skin
 - 1.3.4 Flexors
- 1.4 Tutorial on Smooth Skinning a Character
 - 1.4.1 Understanding Smooth Skinning
 - 1.4.2 Binding Smooth Skin
 - 1.4.3 Editing smooth skin
 - 1.4.4 Using Smooth Skin Influence Objects
 - 1.4.5 Instances
- 1.5 Summary
- 1.6 Key Terms
- 1.7 End Questions
- 1.8 Further Reading

UNIT 2 : CONNECTING ATTRIBUTES

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Dependency Graph
 - 2.2.1 Nodes
 - 2.2.2 Attributes
 - 2.2.3 Connections
 - 2.2.4 Types of Connections
 - 2.2.5 Keyed Relationships
- 2.3 Expressions
 - 2.3.1 Animation Expressions
 - 2.3.2 Creating Animation Expressions
 - 2.3.3 Attributes and Drivers
 - 2.3.4 Time and Frame Keywords
 - 2.3.5 Editing Expressions
 - 2.3.6 Editing Text in Animation Expression
 - 2.3.7 Animation Expression with Text Editor
 - 2.3.8 Deleting Animation Expression
- 2.4 Understanding Constraints
 - 2.4.1 Constraint Node Behavior
 - 2.4.2 Enabling and Disabling Constraint Nodes

- 2.4.3 Workflow Summary
- 2.4.4 Using Point Constraints
- 2.4.5 Using Geometry Constraints
- 2.5 Summary
- 2.6 Key Terms
- 2.7 End Questions
- 2.8 Further reading

UNIT 3 : CHARECTER CONTROLS

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Characters
 - 3.2.1 Character Node Behaviour
 - 3.2.2 Defining Characters
 - 3.2.3 Creating Characters
 - 3.2.4 Editing Characters
 - 3.2.5 Deleting Characters
 - 3.2.6 Animating Characters
- 3.3 Introducing Skeletons
 - 3.3.1 Understanding Skeletons
 - 3.3.2 Editing Node Behaviour to Improve Performance
 - 3.3.3 Workflow Summary
- 3.4 Building Skeletons
 - 3.4.1 Understanding Skeleton Construction
 - 3.4.2 Creating Joint Chains and Limbs
 - 3.4.3 Editing Joints
- 3.5 Posing Skeletons
 - 3.5.1 Forward Kinematics
 - 3.5.2 Inverse Kinematics
 - 3.5.3 Handles and Chains of Inverse Kinematics
- 3.6 Tutorial on Building a Control Rig
 - 3.6.1 Control Objects
 - 3.6.2 Rig Controls
 - 3.6.3 IK or FK
 - 3.6.4 Setup Theory
 - 3.6.5 The Hips
 - 3.6.6 The Legs and Feet
 - 3.6.7 Automatic Foot Roll
 - 3.6.8 Arms and Wrist
 - 3.6.9 Shoulder Blades
 - 3.6.10 Chain Up Vectors: The Third Dimension
 - 3.6.11 Controlling the Head Using a Position and Orientation Constraint
 - 3.6.12 Invert the Constraints
 - 3.6.13 Fine-Tuning and Parenting the Rig
 - 3.6.14 Creating a Model Space
- 3.7 Summary
- 3.8 Key Terms
- 3.9 End Questions
- 3.10 Further Reading

UNIT 4 : ANIMATION BASICS

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Tutorial on Keyframe Animation
 - 4.2.1 Key frame animation
 - 4.2.2 Sequencing of events
 - 4.2.3 Fast track to keyframe animation
 - 4.2.4 Key frame animation : twelve steps to heaven
- 4.3 In-between and interpolation
- 4.4 Setting keys
 - 4.4.1 Animation controls
- 4.5 Playback controls
- 4.6 Animation controls menu
- 4.7 Basic animation principles
 - 4.7.1 Squash and stretch
 - 4.7.2 Anticipation follow through secondary action
- 4.8 Summary
- 4.9 Key terms
- 4.10 End Questions
- 4.11 Further reading

UNIT 5 : MECHANICS OF WALKING

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 pictures in walking
 - 5.2.1 understanding the mechanics of walking
 - 5.2.2 animating a walk
 - 5.2.3 keeping character 's feet on the ground
 - 5.2.4 cyclical motion
 - 5.2.5 walking tips
 - 5.2.6 walking in pictures
- 5.3 walking exercise
- 5.4 pushing a box
- 5.5 Summary
- 5.6 Key Terms
- 5.7 End Question
- 5.8 Further Reading

UNIT 6 : ANIMATION TOOLS

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 File Referencing
 - 6.2.1 Creating References: Hierarchical Scene Management
 - 6.2.2 Proxy References
 - 6.2.3 Proxies with Shared Edits
 - 6.2.4 Proxy Referencing Workflows
 - 6.2.5 Proxy Tags
 - 6.2.6 Reference Editor
 - 6.2.7 Managing References
 - 6.2.8 Viewing Selected References

- 6.3 Non-Linear Animation
- 6.4 Using Trax Editor
- 6.5 Create Character Set
 - 6.5.1 Features of Character Setup
- 6.6 Animation Retargeting
- 6.7 Retargeting Workflow
 - 6.7.1 Setting a Neutral Pose and Target Skeletons
 - 6.7.2 Labelling the Joints and Target Skeletons
 - 6.7.3 Set the Retargeting Solver Options
- 6.8 Tutorial on Retargeting
- 6.9 Summary
- 6.10 Key Terms
- 6.11 End Questions

Course: BMG 304 ADVANCED MAYA

UNIT 1 : TEXTURE BASICS IN MAYA

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Texturing Basics in Maya
 - 1.2.1 Hypershade
- 1.3 Editing Materials Using Hypershade And Attribute Editor
 - 1.3.1 Working with Hypershade
 - 1.3.2 Editing Material Using Attribute Editor
- 1.4 Rendering Nodes and their Attributes
 - 1.4.1 Material Nodes and their attributes
 - 1.4.2 Texture Nodes
 - 1.4.3 Placement Nodes
- 1.5 Summary
- 1.6 Key Terms
- 1.7 End Questions
- 1.8 Further Reading

UNIT 2 : TEXTURING IN PRACTICING

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Tutorial on building shading Networks
 - 2.2.1 Texturing stone wall Material
 - 2.2.2 Creating Bronze Material
 - 2.2.3 Creating Bump & Reflectivity maps
- 2.3 UV Texture mapping
 - 2.3.1 Creating Uv's
- 2.4 UV Texture Editor
 - 2.4.1 Editing UVs
 - 2.4.2 Automatic Mapping, Exporting UVs & Importing Custom Texture
- 2.5 Mapping Human Model
- 2.6 Summary
- 2.7 Key Terms
- 2.8 End Question
- 2.9 Further Reading

UNIT 3 : LIGHTS AND CAMERA

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Light Nodes
 - 3.2.1 Types of lights
 - 3.2.2 Light Effects
 - 3.2.3 Types of shadows
- 3.3 Camera Nodes
 - 3.3.1 Camera Settings
 - 3.3.2 Camera Tools
 - 3.3.3 Camera Attributes
- 3.4 Outdoor Environment Lighting

- 3.5 Creating Dome Light
- 3.6 Summary
- 3.7 Key Terms
- 3.8 End Question
- 3.9 Further Reading

UNIT 4 : RENDERING

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Rendering in Maya
 - 4.2.1 Types of Rendering in Maya
 - 4.2.2 Available Renders in Maya
 - 4.2.3 Interactive Photorealistic Rendering (IPR)
 - 4.2.4 Render Output/File formats
 - 4.2.5 Image Quality and Render speed
 - 4.2.6 Object specific Render Attributes/Render stats
- 4.3 Understanding Mental Ray
 - 4.3.1 Global Illumination
 - 4.3.2 Final Gather
 - 4.3.3 Image Based Lighting
 - 4.3.4 Rendering an Interior with GI
 - 4.3.5 Caustics
 - 4.3.6 Displacement Mapping
 - 4.3.7 High Dynamic Range Image (HDRI)
- 4.4 Summary
- 4.5 Key Terms
- 4.6 End Questions
- 4.7 Further Reading

UNIT 5 : PARTICLES AND FIELDS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Introduction to Particles
 - 5.2.1 Particle Tool
 - 5.2.2 Emmitter
- 5.3 Particle Attributes
 - 5.3.1 Lifespan
 - 5.3.2 Render Attributes
 - 5.3.3 Per Particle Attributes
- 5.4 Fields
 - 5.4.1 Applying Fields
 - 5.4.2 Types of Fields
 - 5.4.3 Common Field Attributes
- 5.5 Tutorial for Particles and Fields
- 5.6 Summary
- 5.7 Key terms
- 5.8 End Question
- 5.9 Further Reading

UNIT 6 : MAYA HAIR

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Using Hair in Maya
 - 6.2.1 Creating Hairs
 - 6.2.2 Hair Presets
- 6.3 Maya Hair
 - 6.3.1 Understanding XGen
 - 6.3.2 Creating XGen Description
 - 6.3.3 Dynamic Curve with IK Spline
- 6.4 Summary
- 6.5 Key terms
- 6.6 End Question
- 6.7 Further Reading

UNIT 7 : MAYA CLOTH

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Loading Cloth with Maya
- 7.3 Creating A Table cloth using Maya classic cloth
 - 7.3.1 Creating a dress
- 7.4 Summary
- 7.5 Key terms
- 7.6 End Question
- 7.7 Further Reading

UNIT 8 : RENDERING FOR POST - PRODUCTION

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Camera Mapping
- 8.3 Creating A Reflection Map
 - 8.3.1 Environment Ball
- 8.4 Rendering a sequence
 - 8.4.1 Render Layers
 - 8.4.2 Render setting Override
- 8.5 Rendering in a separate passes for Post-Production
 - 8.5.1 Multi-render pass workflow
 - 8.5.2 Batch Render
- 8.6 Summary
- 8.7 Key terms
- 8.8 End Question
- 8.9 Further Reading

UNIT 9 : COMPOSITING FOR POST PRODUCTION

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Setting up the compositing software
 - 9.2.1 compositing various passes
- 9.3 Rendering passes and compositing
 - 9.3.1 rendering layers

9.4 Summary

9.5 End Question

9.6 Further Reading

Course: BMG 305: INTRODUCTION TO 3DS MAX

UNIT 1 : 3DS MAX: AN OVERVIEW

- 1.1 Unit Objectives
- 1.2 Views (Viewports)
 - 1.2.1 Manipulating Views: Tutorial
- 1.3 Tools and the Main Toolbar
 - 1.3.1 Title Bar and Menu
 - 1.3.2 Main Toolbar
- 1.4 The Command Panel
- 1.5 Quad Menu
- 1.6 Rollouts: Inputs, Spinners and Flyout Menus
 - 1.6.1 Types of Rollouts
 - 1.6.2 Spinners
 - 1.6.3 Flyout Menus
 - 1.6.4 Input
- 1.7 Summary
- 1.8 Key Terms
- 1.9 Questions and Exercise

UNIT 2: THE 3DS MAX PRODUCTION PIPELINE

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Project Planning
- 2.3 Steps in Project Planning
 - 2.3.1 Assessing the Problem
 - 2.3.2 Bidding and Billing
 - 2.3.3 Signing Copyright, Non-Disclosure and Non-Compete Agreements
 - 2.3.4 Getting Approval
 - 2.3.5 Creating Storyboards
 - 2.3.6 Creating Mock-ups and Animatics
 - 2.3.7 Starting Full-Scale Production and Delivering Preliminary and Final Contents
 - 2.3.8 Delivering Preliminary Content
 - 2.3.9 Delivering Final Content
 - 2.3.10 Billing the Client
 - 2.3.11 Ending the Contract
 - 2.3.12 Giving Recognition
- 2.4 The Production Pipeline
- 2.5 Summary
- 2.6 Key Terms
- 2.7 Questions and Exercise

UNIT 3 : STARTING SIMPLE: CREATING SHAPES AND PRIMITIVES

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Creating Shapes
- 3.3 Creating Basic Shapes
 - 3.3.1 Editing Splines
- 3.4 Building a Line

- 3.5 Creating Primitives
- 3.6 Tutorial: Creating Sphere, Geosphere and Box
- 3.6.1 Tutorial Review
- 3.7 Tutorial: Creating Torus, Pyramid and Plane
- 3.8 Building Cylinders, Cones and Tubes
- 3.9 Creating Teapot and TextPlus
- 3.10 Segments and Sides
- 3.10.1 Tutorial: Editing the Segments and Side Parameters
- 3.10.2 Editing Primitives and Shape Parameters
- 3.11 The Modify Panel
- 3.12 Summary
- 3.13 Key Terms
- 3.14 END QUESTIONS

UNIT 4 : MANAGING AND MANIPULATING 3D SPACE

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Transform Axis and Tools and Pivot Point
- 4.3 Transform Gizmos
- 4.4 Positional Transforms
- 4.4.1 Tutorial: Transforming with the Select and Move Tools
- 4.5 Transform Type-in Dialog Box
- 4.5.1 Tutorial: Using the Transform Type-in Dialog Box
- 4.6 Using the Quad Menu
- 4.6.1 Tutorial using Quad Menu
- 4.7 Rotational Transforms
- 4.7.1 Using the Rotate Transform Gizmo
- 4.8 Scale Transforms
- 4.9 Select and Place Transform
- 4.10 Coordinate Systems Overview
- 4.11 Summary
- 4.12 Key Terms
- 4.13 END QUESTIONS

UNIT 5 : BUILDING WITH SUB-OBJECTS

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Sub-Objects
- 5.2.1 Project Directive
- 5.2.2 Project Assessment
- 5.2.3 Modifiers
- 5.3 Tutorial: Adding an Edit Mesh Modifier
- 5.4 Tutorial: Transforming Sub-Objects
- 5.5 Building the Mailbox Body
- 5.5.1 Tutorial
- 5.6 Tutorial: Creating the Door Using an Editable Poly Object
- 5.7 Summary
- 5.8 Key Terms
- 5.9 Questions and Exercise

UNIT 6 : BUILDING A WATER TOWER

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Project Assessment
- 6.3 Tutorial: Building a Tower Cap
- 6.4 Tutorial: Building a Tower Body
- 6.5 Tutorial: Creating the Cross Beams
- 6.6 Tutorial: Creating the Vertical Support Beams
- 6.7 Tutorial: Creating a Tank Floor and Bottom Cross Beams
 - 6.7.1 Building Bottom Cross Beams
- 6.8 Summary
- 6.9 Key Terms
- 6.10 Questions and Exercise

UNIT 7: BUILDING THE ELASTIC-POWERED ATMOSHPHERIC TRANSFORMER

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Overview
- 7.3 Tutorial: Creating the Wings
- 7.4 Adding Stabilizer and Rudder
- 7.5 Creating Sponsons
- 7.6 Creating the Gondola
- 7.7 Summary
- 7.8 Key Terms
- 7.9 Questions and Exercise

UNIT 8 : COMPLEX MODELING: CREATING A SKULL

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Setting Up the Scene
- 8.3 Creating the Basic Head Division
- 8.4 Creating the Nose
- 8.5 Creating the Mouth
- 8.6 Creating the Eyes
- 8.7 Refining the Forehead, Chin and Cheeks
- 8.8 Refining the Head and neck
- 8.9 Creating the Ears
- 8.10 Summary
- 8.11 Key Terms
- 8.12 Questions and Exercise

Course: BMG 306: ADVANCED 3D MAX

UNIT 1 : BASIC HIERARCHIES AND PARAMETRIC ANIMATION

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Basic Animation
- 1.3 Auto Key And Set Key Modes
- 1.4 Animating And Wiring Parameters
 - 1.4.1 Animating Parameters
 - 1.4.2 Wiring Parameters
 - 1.4.3 Creating A Hierarchy
- 1.5 Summary
- 1.6 Key Terms
- 1.7 End Questions
- 1.8 Further Reading

UNIT 2 : BUILDING A DOLPHIN CHARACTER

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Modeling Female Character
 - 2.2.1 Tutorial: Modeling The Body
 - 2.2.2 Tutorial: Modeling The Arm
- 2.3 Gloves Modeling
- 2.4 Modeling The Head And Ear
 - 2.4.1 Tutorial: Modeling The Head
 - 2.4.2 Tutorial: Modeling The Back Of Head
 - 2.4.3 Tutorial: Modeling The Jaw And Chin
 - 2.4.4 Tutorial: Modeling The Nose
- 2.5 Summary
- 2.6 Key Terms
- 2.7 End Questions
- 2.8 Further Reading

UNIT 3 : RIGGING AND ANIMATING

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Creating A Biped
 - 3.2.1 Understanding The Biped Anatomy
 - 3.2.2 Naming The Biped
- 3.3 Posing The Biped
 - 3.3.1 Changing The Biped Structure
 - 3.3.2 Working With Both Arms Or Legs
- 3.4 Rubber-Banding Arms And Legs
 - 3.4.1 Linking Character Body Parts To The Biped
- 3.5 Animating The Biped
- 3.6 Summary
- 3.7 Key Terms
- 3.8 End Questions
- 3.9 Further Reading

UNIT 4 : BASICS OF MATERIALS

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Material Editor - Key To Creation
 - 4.2.1 Material Editor- An Overview
- 4.3 Selecting A Shader
- 4.4 Specular Controls
 - 4.4.1 Mapping Problems And Solutions
- 4.5 Bump Maps And Other Material Attributes
- 4.6 Summary
- 4.7 Key Terms
- 4.8 End Questions
- 4.9 Further Reading

UNIT 5 : MATERIALS UNWRAPPED

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Mapping With Uvw Map
- 5.3 Mapping With Unwrap Uvw
- 5.4 Creating And Applying Materials For A Flag
- 5.5 Summary
- 5.6 Key Terms
- 5.7 End Questions
- 5.8 Further Reading

UNIT 6 : LIGHTING AND ATMOSPHERICS

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Indoor And Outdoor Lighting
- 6.3 Adding Lights To A Scene
- 6.4 Customized Lighting Projection Maps And Advanced Effects
- 6.5 Summary
- 6.6 Key Terms
- 6.7 End Questions
- 6.8 Further Reading

UNIT 7 : RENDERING

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Rendering
 - 7.2.1 Rendering Parameters
 - 7.2.3 Tutorial: Using Network Rendering To Setup A Render Farm
 - 7.2.4 Network Rendering With Monitor
- 7.3 Raytracer
 - 7.3.1 Raytracer Parameters
- 7.4 Rendering Output To Frames
- 7.5 Cameras
 - 7.5.1 Free Camera
 - 7.5.2 Target Camera

7.5.3 Camera Viewport
7.6 Summary
7.7 Key Terms
7.8 End Questions
7.9 Further Reading

UNIT 8 : PARTICLE FLOW FOR MODELING AND EFFECTS

8.0 Introduction
8.1 Unit Objectives
8.2 Particle Flow
8.3 Particle Spawn And Events
8.4 Summary
8.5 Key Terms
8.6 End Questions
8.7 Further Reading

Course: BMG 307 : CHARACTER ANIMATION

UNIT 1 : THE BASICS OF CHARACTER ANIMATION

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Introduction to 3DS MAX
 - 1.2.1 3DS MAX
- 1.3 Animation Pipeline
- 1.4 Principles of Animation
- 1.5 Human Anatomy
 - 1.5.1 Bones and Constraints
 - 1.5.2 Animation Constraints
- 1.6 Modifiers
 - 1.6.1 List of Modifiers
- 1.7 Expression Controller
- 1.8 Max Script
- 1.9 Summary
- 1.10 Key Terms
- 1.11 End Question
- 1.12 Further Reading

UNIT 2 : CHARACTER MODELLING

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Setting References on Viewport
 - 2.2.1 Object properties
- 2.3 Creating Body
- 2.4 Creating Head
- 2.5 Modelling Hands
- 2.6 Summary
- 2.7 Key Term
- 2.8 End Question
- 2.9 Further Reading

UNIT 3 : REPARATION FOR ANIMATION

- 3.0 Introduction
- 3.1 Unit Objectives
- 3.2 Making skeleton of two legged character
 - 3.2.1 Bone creation
 - 3.2.2 Rigging the Legs and Feet
 - 3.2.3 Rigging Arm and Hand
 - 3.2.4 Using Reaction Manager
 - 3.2.5 Elbow and Wrist Control
 - 3.2.6 Creating Spine Control
 - 3.2.7 Creating Head Control
 - 3.2.8 Duplicating Left side controls onto Right side
 - 3.2.9 Creating character

- 3.3 Facial Rig
- 3.4 Skinning
- 3.5 Summary
- 3.6 Key Term
- 3.7 End Question
- 3.8 Further Reading

UNIT 4 : ANIMATION OF BIPED (TWO-LEGGED) CHARACTER

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Bouncing Ball Animation
- 4.3 Creating A Biped Walk
 - 4.3.1 Creating First Step
 - 4.3.2 Finishing the walk Cycle
 - 4.3.3 Correcting the walk and adding secondary action
- 4.4 Summary
- 4.5 Key Terms
- 4.6 End Questions
- 4.7 Further Reading

UNIT 5 : ANIMATION OF QUADRUPED (FOUR-LEGGED) CHARACTER

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Animating Quadruped
- 5.3 Summary
- 5.4 Key Terms
- 5.5 Question and Exercises
- 5.6 Further Reading

UNIT 6 : ANIMATION OF EXPRESSIONS

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Morphing Facial Expressions
- 6.3 Animating Lips
- 6.4 Animating Eyes
 - 6.4.1 Rotating Eyes
- 6.5 Body Expression
- 6.6 Summary
- 6.7 Key Terms
- 6.8 Questions and Exercises
- 6.9 Further Reading

UNIT 7 : PREPARING BIPED WITH CHARACTER STUDIO

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 Introduction to Character Studio
- 7.3 Skinning

7.4 Assigning Physique Modifier

7.4.1 Bulge

7.4.2 Tendons

7.5 Summary

7.6 Key Terms

7.7 Question and Exercises

UNIT 8 : ANIMATION USING CHARACTER STUDIO

8.0 Introduction

8.1 Unit Objectives

8.2 Methods of Animating a Biped

8.2.1 Animating a Biped

8.2.2 Libraries of Animation

8.3 Summary

8.4 Key Term

8.5 Questions and Exercises

Course: BMG 308: CG FILM MAKING

UNIT 1 : STORY IDEAS

- 1.0 Introduction
- 1.1 Unit Objectives
- 1.2 Types of Story Concepts
- 1.3 The Idea
- 1.4 Motive of the Film
- 1.5 Avoiding Pitfalls and Perils
- 1.6 Not Having a Story
- 1.7 Sample Story
- 1.8 Summary
- 1.9 Key Terms
- 1.10 End Questions
- 1.11 Further Reading

UNIT 2 : PRODUCTION THE ANIMATION PIPELINE

- 2.0 Introduction
- 2.1 Unit Objectives
- 2.2 Prepare to Organize
- 2.3 CG's Scope of Work
- 2.4 Planning-A Preview of the 3D Process
- 2.5 Wearing the Producer's Hat
- 2.6 Production Documents
- 2.7 Scope of Work: Post-production
- 2.8 Feasibility Revisited
- 2.9 Decisions of Key Methodology
- 2.10 Scheduling: Adding Life to the Invention
- 2.11 R&D and Learning: Computer Graphics Concepts
- 2.12 Organizational Methods
- 2.13 Planning a Sample Film
- 2.14 Factors that Affect Scheduling
- 2.15 Production Tools
- 2.16 Role of Feasibility
- 2.17 Top-level Considerations
- 2.18 Summary
- 2.19 Key Terms
- 2.20 End Questions
- 2.21 Further Reading

UNIT 3 : SCRIPTWRITING: STORY AND CHARACTER THROUGH DIALOGUE

- 3.1 Introduction
- 3.2 Unit Objectives
- 3.3 Preparation
- 3.4 Outlining the Plot
- 3.5 Creating a Back Story

- 3.6 Knowing what your Character would do
- 3.7 Sample Biography
 - 3.7.1 Challenges of Adaptations
- 3.8 Scriptwriting: What Does a Given Phrase Make One Animate?
- 3.9 Character Acting Starts with the Script: New Characters
- 3.10 Writing Dialogues
- 3.11 Internal Dialogue: Writing Actions
- 3.12 Writing Script for the Sample Film
- 3.13 Revisions: Fine-tuning the Dialogue
- 3.14 Summary
- 3.15 Key Terms
- 3.16 End Questions
- 3.17 Further Reading/References

UNIT 4 : ART DIRECTION: DESIGNING THE ANIMATION

- 4.0 Introduction
- 4.1 Unit Objectives
- 4.2 Art Direction: Establishing an Aesthetic
- 4.3 Reference Creating Concept Art
- 4.4 Character Design
 - 4.4.1 Issues and Limitations of Character Design
- 4.5 Facial Design
 - 4.5.1 Male/Female Facial Design
- 4.6 Male/Female Body Type
- 4.7 The Male/Female Costume Design
- 4.8 Tying Aesthetic Elements Together
- 4.9 The Character's Design Drawings
- 4.10 Set Design
- 4.11 The Visual Identity
- 4.12 Summary
- 4.13 Key Terms
- 4.14 End Questions
- 4.15 Further Reading

UNIT 5 : STORYBOARDING: CINEMATIC PLANNING

- 5.0 Introduction
- 5.1 Unit Objectives
- 5.2 Storyboarding: A Cinematographer's Job
- 5.3 Character Choreography and Placement
- 5.4 Action, Drama and Expressions
- 5.5 Camera Composition and Moves
- 5.6 Editing by Animators
- 5.7 Storyboards: The Ultimate Planning Tool
 - 5.7.1 Define the Target Audience
 - 5.7.2 Demographics
 - 5.7.3 Psychographics
 - 5.7.4 Define the Content
 - 5.7.5 Define the Appropriate Medium
 - 5.7.6 Drawing Storyboards
- 5.8 Previsualization
- 5.9 Final Draft

- 5.10 Summary
- 5.11 Key Terms
- 5.12 End Questions
- 5.13 Further Reading

UNIT 6 : SOUND A FILM'S SONIC IDENTITY

- 6.0 Introduction
- 6.1 Unit Objectives
- 6.2 Thomas Edison's 'The Sneeze'
- 6.3 Setting the Tone
- 6.4 Sound as a Storytelling Tool
- 6.5 Directing a Dialogue-Recording Session
- 6.6 Sound Effects
- 6.7 Components of a Soundtrack
- 6.8 Audio Workflow for Your Animation
- 6.9 Character Dialogue
- 6.10 Sound Effects: Using Existing Music
- 6.11 Sound Effects: Basic Sound Effect Techniques
- 6.12 Music with a Composer or Songwriter
- 6.13 General Notes: Sound as a Storytelling Tool
- 6.14 Summary
- 6.15 Key Terms
- 6.16 End Questions and
- 6.17 Further Reading

UNIT 7 : LAYOUT PREPARING THE SCENE

- 7.0 Introduction
- 7.1 Unit Objectives
- 7.2 The Producer's Job
- 7.3 Organizing with Selection Sets and Filters
 - 7.3.1 Blocking Movement;
 - 7.3.2 Pre-Visualization Revisited
- 7.4 Summary
- 7.5 Key Terms
- 7.6 End Questions
- 7.7 Further Reading

UNIT 8 : FACIAL ANIMATION : KEYFRAMING EXPRESSIONS

- 8.0 Introduction
- 8.1 Unit Objectives
- 8.2 Rigging the Face with Morph Targets
- 8.3 Defining a Set of Morph Targets for Modeling
- 8.4 Setting Up the Morpher Modifier
- 8.5 Facial Animation: Animating the Eyes
- 8.6 Animating Facial Expressions
- 8.7 Morphing of Muscles
- 8.8 Summary
- 8.9 Key Terms
- 8.10 End Questions
- 8.11 Further Reading

UNIT 9 : BRINGING THE BACKGROUND TO LIFE

- 9.0 Introduction
- 9.1 Unit Objectives
- 9.2 Secondary Animation: 3-D Effects Animation Scatter Compound Objects
 - 9.2.1 Distribution Object Parameters
 - 9.2.2 The Transform Rollout
- 9.3 Orbiting Particle Systems
 - 9.3.1 PixieDust
 - 9.3.2 Unique Particle Settings
- 9.4 Secondary Animation with the Flex Modifier
- 9.5 Final Linking, Framing, and Merging
 - 9.5.1 Grouping Objects
 - 9.5.2 Tasks
- 9.6 Orbiting Light Trails: Creating Random Oscillations Basic Skills=Lighting
- 9.7 The Appearance of Light Bubble Stream ‘
- 9.8 Summary
- 9.9 Key Terms
- 9.10 End Questions
- 9.11 Further Reading

UNIT 10 : LIGHTING AND RENDERING: CRAFTING AN ATMOSPHERE

- 10.0 Introduction
- 10.1 Unit Objectives
- 10.2 The Importance of Lighting in CG
 - 10.2.1 Develop Your Eye
- 10.3 Character Lighting within a Scene
- 10.4 Character Lighting: Three-Point Set-Up
 - 10.4.1 KeyLight
 - 10.4.2 Fill Light
 - 10.4.3 BackLight
 - 10.4.4 Three-Point Lighting in Action
 - 10.4.5 Integrating Character and Environmental Lighting
- 10.5 Adding Global Illumination and High Dynamic Range Images
 - 10.5.1 Creating a Volumetric Light
 - 10.5.2 Volume Light Parameters
- 10.6 Choosing a Renderer
 - 10.6.1 Basics of Renderer Tab
- 10.7 Final Rendering: Letting Your Computer Work for You
- 10.8 Rendering: Environment and Video Effects
- 10.9 Integrated and Environmental Lighting
- 10.10 Effects in the Sample Film
- 10.11 How the HDRI Image for Cloud 10 was Created
- 10.12 Summary
- 10.13 Key Terms
- 10.14 Questions and Exercises
- 10.15 Further Reading

UNIT 11 : COMPOSITING AND VIDEO EDITING: FINISHING TOUCHES

- 11.0 Introduction
- 11.1 Unit Objectives
- 11.2 Compositing with Combustion 3: Creating a Video game Interface
 - 11.2.1 Physical Prototypes;
 - 11.2.2 Prototyping a First-Person Shooter
 - 11.2.3 Software Prototypes
- 11.3 Video Editing: Simple Editing with Adobe Premiere
- 11.4 Video Compression Codecs: Getting your Films out to the World
- 11.5 Summary
- 11.6 Key Terms
- 11.7 Questions and Exercises
- 11.8 Further Reading

Course: BMG309: Project Work

Course: BMG310: Environment Science (UGC syllabus)

UNIT 1: THE MULTIDISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES

1.1 Definition, Scope And Importance

1.1.1 Definition

1.1.2 Scope

1.1.3 Importance

1.2 Need For Public Awareness

1.2.1 Institutions In Environment

1.2.2 People In Environment

UNIT 2: NATURAL RESOURCES

2.1 Introduction

2.2 Renewable And Non-Renewable Resources

2.2.1 Natural resources and associated problems

2.2.2 Non-renewable resources

2.2.3 Renewable resources

2.3 Role Of An Individual In Conservation Of Natural Resources

2.4 Equitable Use Of Resources For Sustainable Lifestyles

UNIT 3: ECOSYSTEMS

3.1 Concept Of An Ecosystem

3.1.1 Understanding Ecosystems

3.1.2 Ecosystem Degradation

3.1.3 Resource Utilisation

3.2 Structure And Functions Of An Ecosystem

3.3 Producers, Consumers And Decomposers

3.4 Energy Flow In The Ecosystem

3.4.1 The Water Cycle

3.4.2 The Carbon Cycle

3.4.3 The Oxygen Cycle

3.4.4 The Nitrogen Cycle

3.4.5 The Energy Cycle

3.4.6 Integration Of Cycles In Nature

3.5 Ecological Succession

3.6 Food Chains, Food Webs And Ecological Pyramids

3.6.1 The Food Chains

3.6.2 The Food Webs

3.6.3 The Ecological Pyramids

3.7 Introduction, Types, Characteristic Features, Structure And Functions

3.7.1 Forest Ecosystem

3.7.2 Grassland Ecosystem

- 3.7.3 Desert Ecosystem
- 3.7.4 Aquatic Ecosystems (Ponds, Lakes, Streams, Rivers, Estuaries, Oceans)

UNIT 4: BIODIVERSITY AND ITS CONSERVATION

- 4.1 Introduction – Definition: Genetic, Species, Ecosystem Diversity
 - 4.1.1 Genetic Diversity
 - 4.1.2 Species Diversity
 - 4.1.3 Ecosystem Diversity
- 4.2 Biogeographic Classification Of India
- 4.3 Value Of Biodiversity: Consumptive, Productive Use, Social, Ethical, Aesthetic And Option Values
 - 4.3.1 consumptive Value
 - 4.3.2 Productive Value
 - 4.3.3 Social Value
 - 4.3.4 Ethical Value
 - 4.3.5 Aesthetic Value
 - 4.3.6 Option Value
- 4.4 Biodiversity At Global, National And Local Levels
- 4.5 India As A Mega Diversity Nation
- 4.6 Hotspots Of Biodiversity
- 4.7 Threats To Biodiversity: Habitat Loss, Poaching Of Wildlife, Man-Wildlife Conflicts
- 4.8 Endangered And Endemic Species Of India
 - 4.8.1 Common Plant Species
 - 4.8.2 Common Animal Species
- 4.9 Conservation Of Biodiversity: In-Situ And Ex-Situ
 - 4.9.1 In-Situ Conservation
 - 4.9.2 Ex-Situ Conservation

UNIT 5: ENVIRONMENTAL POLLUTION

- 5.1 Definition
- 5.2 Causes, Effects And Control Measures Of:
 - 5.2.1 Air Pollution
 - 5.2.2 Water Pollution
 - 5.2.3 Soil Pollution
 - 5.2.4 Marine Pollution
 - 5.2.5 Noise Pollution
 - 5.2.6 Thermal Pollution
 - 5.2.7 Nuclear Hazards
- 5.3 Solid Waste Management: Causes, Effects And Control Measures Of Urban And Industrial Waste
- 5.4 Role Of Individuals In Pollution Prevention
- 5.5 Pollution Case Studies
- 5.6 Disaster Management: Floods, Earthquakes, Cyclones, Landslides

UNIT 6: SOCIAL ISSUES AND THE ENVIRONMENT

- 6.1 From Unsustainable To Sustainable Development
- 6.2 Urban Problems Related To Energy
- 6.3 Water Conservation, Rain Water Harvesting, Watershed Management
 - 6.3.1 Water Conservation
 - 6.3.2 Rain Water Harvesting
 - 6.3.3 Watershed Management
- 6.4 Resettlement And Rehabilitation Of People; Its Problems And Concerns. Case Studies
- 6.5 Environmental Ethics: Issues And Possible Solutions
 - 6.5.1 Resource Consumption Patterns And The Need For Their Equitable Utilisation
 - 6.5.2 Equity – Disparity In The Northern And Southern Countries
 - 6.5.3 Urban – Rural Equity Issues
 - 6.5.4 The Need For Gender Equity
 - 6.5.5 Preserving Resources For Future Generations
 - 6.5.6 The Rights Of Animals
 - 6.5.7 The Ethical Basis Of Environment Education And Awareness
 - 6.5.8 The Conservation Ethic And Traditional Value Systems Of India
- 6.6 Climate Change, Global Warming, Acid Rain, Ozone Layer Depletion, Nuclear Accidents And Nuclear Holocaust. Case Studies
 - 6.6.1 Climate Change
 - 6.6.2 Global Warming
 - 6.6.3 Acid Rain
 - 6.6.4 Ozone Layer Depletion
 - 6.6.5 Nuclear Accidents And Nuclear Holocaust
- 6.7 Wasteland Reclamation
- 6.8 Consumerism And Waste Products
- 6.9 Environment Protection Act
- 6.10 Air (Prevention And Control Of Pollution) Act
- 6.11 Water (Prevention And Control Of Pollution) Act
- 6.12 Wildlife Protection Act
- 6.13 Forest Conservation Act
- 6.14 Issues Involved In Enforcement Of Environmental Legislation
 - 6.14.1 Environment Impact Assessment (EIA)
 - 6.14.2 Citizens Actions And Action Groups
- 6.15 Public Awareness
 - 6.15.1 Using An Environmental Calendar Of Activities
 - 6.15.2 What Can I Do?

UNIT 7: HUMAN POPULATION AND THE ENVIRONMENT

- 7.1 Population Growth, Variation Among Nations
 - 7.1.1 Global population growth
- 7.2 Population Explosion –Family Welfare Program
 - 7.2.1 Methods of sterilization
- 7.1.2 Urbanization
- 7.3 Environmental And Human Health

- 7.3.1 Environmental health
- 7.3.2 Climate and health
- 7.3.3 Infectious diseases
- 7.3.4 Water-related diseases
- 7.3.5 Risks due to chemicals in food
- 7.3.6 Cancer and environment
- 7.4 Human Rights
 - 7.4.1 Equity
 - 7.4.2 Nutrition, health and human rights
 - 7.4.3 Intellectual Property Rights and Community Biodiversity Registers
- 7.5 Value Education
 - 7.5.1 Environmental Values
 - 7.5.2 Valuing Nature
 - 7.5.3 Valuing cultures
 - 7.5.4 Social justice
 - 7.5.5 Human heritage
 - 7.5.6 Equitable use of Resources
 - 7.5.7 Common Property Resources
 - 7.5.8 Ecological degradation
- 7.6 Hiv/Aids
- 7.7 Women And Child Welfare
- 7.8 Role Of Information Technology In Environment And Human Health